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EDITED BY
CHARLES E. de M. SAJOUS, M.D.,
PHILADELPHIA.

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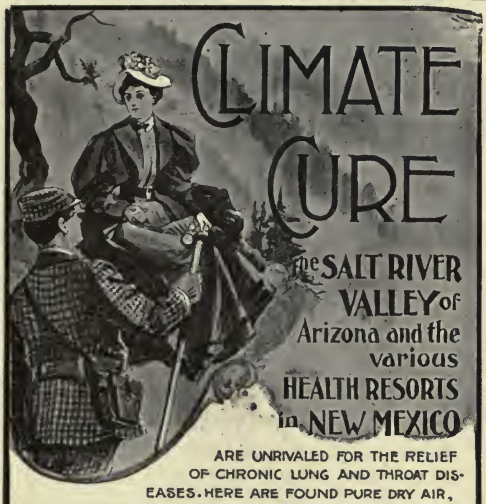

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Laryngeal Diphtheria . . .	26	6
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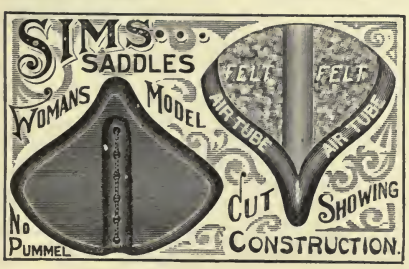

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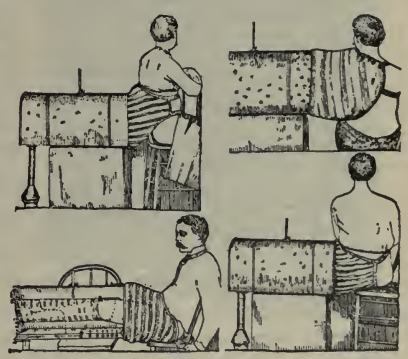

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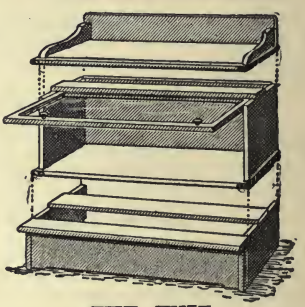

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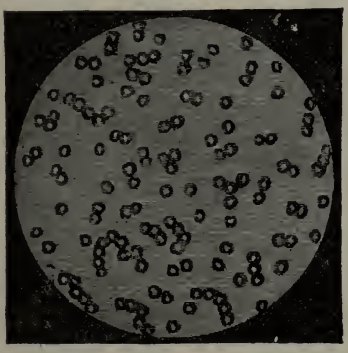

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Cyclopædia of the Year's Literature.

ABDOMINAL SURGERY.

Exploration and Operation. — Hall[1] praises the vaginal route, because: there is little danger to life, little or no suffering, rapid recovery, and no raw surfaces left in the abdominal cavity to cause adhesions.

Coe[2] considers the direct method pref-

[1] Kansas City Medical Index, April, '97.
[2] N. Y. Policlinic, May, '97.

erable under the following conditions: When there are neoplasms or obscure enlargements situate within the abdominal cavity that have risen above the pelvic brim. In disease of the adnexa in which the latter are situated near or above the pelvic brim, as established by bimanual palpation. When history and symptoms point to general intestinal adhesions, and, above all, when appendiceal complications are suspected. In ectopic generation before rupture, when the sac is high up, at the side, or in front of the uterus, instead of in Douglas's pouch. When there is tractable pelvic and abdominal pain of obscure origin, including the so-called neuroses.

Sutures.—Réclus[1] holds that catgut is superior to silk, especially when a total hysterectomy is performed by the vaginal route and the sutures left hanging in the vaginal vault. Silk remains indefinitely and is very likely, in spite of all precautions in preparation, to become infected. A woman underwent hysterectomy, and fifteen months thereafter was still suffering from suppuration due to a silk thread.

Manton[2] especially commends the kangaroo-tendon suture, which he has never known to give way. For closing the abdomen the buried animal suture (kangaroo-tendon) as introduced by Marcy, is superior to all other procedures; he has never tried catgut, however, having been early prejudiced against it.

APOPLEXY.

Treatment.—Grasset[3] believes that revulsion in all its forms should be employed to combat congestion. Leeches may be applied behind ears or to anus; venesection is not called for unless there is internal circulatory erethism, accompanied by general turgesence and a vibrating pulse.

Purgatives are valuable, such as 8 to 16 grains of calomel in capsules, given in milk; or a teaspoonful every fifteen minutes of the following:—

℞ Croton-oil, 1 minim.
Castor-oil, 7 1/2 drachms.
Sweet almond-oil, 7 1/2 drachms.
Syrup of lemon, 14 drachms.—M.

If, however, there is difficulty in swallowing or inability to swallow, enemata of glycerin, and from 225 to 450 grains of sodium sulphate dissolved in a decoction of 150 grains of senna, should be employed.

Cutaneous revulsives are also available, such as mustard sinapisms, aseptic compresses soaked in hot, formic-acid solution, etc.; actual blisters should be employed with great caution, preference being given to ammonia or chloral. Again, applications—not too cold and not suddenly interrupted—may be applied to the forehead or vertex. Often in apoplexy stimulation and sustenance are demanded, in which case the following may be employed:—

℞ Acetate of ammonia, 75 grains.
Tincture of canella, 45 minims.
Syrup of orange-flower, 7 1/2 drachms.
Linden-water, 4 ounces.

Alternate with

℞ Caffeine, 30 grains.
Benzoate of soda, 30 grains.
Simple julep, 4 ounces.

If unable to swallow and the indications are urgent, from 15 to 75 or even 150 minims of ether may be given subcutaneously, in divided doses, during the

[1] British Med. Jour., vi, '97.
[2] Med. Age, May 25, '97.
[3] La Médecine Moderne, Jan. 1, '98.

twenty-four hours, or from 30 to 60 minims of a mixture of equal parts of camphor and olive-oil, or, if preferred, of the following:—

℞ Caffeine, 38 grains.
Benzoate of soda, 38 grains.
Boiled water, 150 minims.

The patient should not be allowed to receive visitors or friends; the fewer number of attendants also, the better; and his room must be kept thoroughly aired. Great cleanliness is essential; also the production of eschars carefully looked for. The bladder should be watched and emptied as often as necessary, invoking the aid of the catheter if required.

For diet, milk and bouillon if patient is able to swallow; decoction of cinchona, kola, and, if needed, from 1 1/2 to 2 ounces of spirits or cordial.

ASCARIS LUMBRICOIDES.

Diagnosis.—The general practitioner, as a rule, writes Fuente,[1] attempts to make a diagnosis without microscopical examination of fæces.

The first symptom, generally, is sudden acute abdominal pains, and the history then shows that slight pains have been experienced before, but, being transient, were not complained of; or the fact may be elicited, if dealing with an infant, that it has lately been restless, crying a great deal, refusing nourishment, etc., which condition, however, passed off within a few hours or a day. These pains are characterized by difficulty experienced in determining exact localization, and it is not rare to find a more or less tender point on pressure over the region designated. Very young children, who permit palpation of the whole abdomen without resistance, suddenly start and cry when a certain point is touched, and this is repeated each time this portion is reached.

The differential diagnosis between inflammatory processes is established by the absence of high fever. A slight rise of temperature may occur toward evening, but, during the day, the patients present a perfectly normal temperature. In exceptionally-bad cases the pain is so great that older children moan and cry out. Movements of the bowels are always present; either there is a diarrhœa or quite as frequently the passages are perfectly normal, this being a valuable diagnostic sign. Convulsions have been observed, due to presence of ascarides. The sudden, nearly epidemic appearance, at times, of ascarides in certain localities present a peculiar phenomenon.

Exceedingly remarkable is the enormous contraction of the field of vision in cases where intestinal parasites are present. In some cases this may be demonstrated by a very superficial examination.

BRONCHITIS, ACUTE.

Treatment. — Apomorphine, freshly compounded in acidulated mixture, is the best of all relaxing expectorants. In 1/30-grain doses, at two or three hours' intervals, it rarely fails to cause a free sero-mucous flow in from twelve to thirty-six hours. Rest is an essential adjuvant. Codeine sulphate in 1/5-grain doses, given independently, is the best sedative.

Apomorphine, as above suggested, rarely causes nausea; in fact it seems rather to aid digestion and increase appetite for a limited period; it is also slightly laxative. It can be given for many days in doses gradually decreasing as the expectoration becomes more

[1] Munch. med. Woch., No. 64, '97.

free. It should be administered as long as improvement is decided. Only in debilitated subjects, or where there is a broncho-pneumonia, is it necessary to supplement this treatment with stimulating expectorants, and, of these, carbonate of ammonia is the best.

The skill in the management is to arrest the inflammation, says Duncan. Belladonna has arrested many cases at the larynx, aconite in the trachea, while bryonia is a fine "short-stop" at the bifurcation of the bronchi.

Alexander Duke[1] has more than once seen so-called bronchitis treated by having the air of the patient's bedroom charged with moist vapor without the smallest benefit; the cause was really heart disease. In a number of cases where the inhalation of steam is recommended, dry, heated air would be far more efficacious, especially for those suffering from profuse expectoration and advanced in life. Here the real value of belladonna is due to its drying action in checking the profuse secretion, which is such a source of misery and danger to the aged. In the dry stage, all admit the value of moist inhalations accompanied by warm drinks and soothing expectorants; but in the chronic stages, where the expectoration is profuse and viscid, an occasional emetic has an excellent effect, and turpentine-punch (made with 15 or 20 minims dropped on a lump of white sugar and dissolved in a glass of hot whisky and water) has been the means of saving a life. The dorsal decubitus cannot be too strongly condemned, the viscid secretion being far more likely to accumulate in the bronchial tubes by gravitation alone. The tar preparations are excellent if persevered in, combined, of course, with tonic and strengthening treatment.

The hot, dry chamber of the Turkish bath has been the means of aborting attacks of bronchitis, and deserves a trial, the patient driving in a close vehicle to and from the bath, and with mouth and nose protected with woolen comforter. The indiscriminate recommendation of the bronchitis-kettle is an error; it has contributed to the deaths of not a few.

Charbonneau[2] puts his patients to bed, and at once applies a good-sized mustard plaster, ordering, also, citrate of potash in tablespoonful doses every three hours. Should the cough be troublesome or paroxysmal, codeine, in $^1/_8$- to $^1/_4$- grain doses, with 5 grains of muriate of ammonia; milk diet; bowels to be kept free. He insists that a full dose of Dover's powder will frequently abort an attack.

BRONCHITIS, ACUTE, IN CHILDREN.

Barnett[3] suggests that children be in the open air as much as possible when the weather is suitable. Clothing should be changed to suit the weather; the feet always warm and dry; the sleeping apartment well ventilated; and a cool bath each morning.

In bronchitis in children the inflammation is apt to spread from the larger to the smaller.

Give calomel until the bowels act; apply camphorated oil over chest, then a layer of cotton batting; keep feet warm. After the bowels have acted give fluid extract of asclepias tuberosa, ammonium chloride, and syrup of licorice every hour until the patient is sweating freely and the bronchial secretion is loose; then every three or four hours

[1] Med. Press and Circular, Feb. 3, '97.
[2] La Médecine Moderne, Aug., '97.
[3] Alkaloidal Clinic, Nov., '97.

as necessary. During convalescence use codliver-oil by inunction.

Charbonneau[1] would confine to a large, well-ventilated room maintained at a temperature of 70° F. and cause thorax to be enveloped in a cotton jacket; also rub into groin and axillæ, morning and evening, an ointment composed of from 20 to 30 grains of quinine; chloroform, q. s.; and lanolin, to make 1 ounce. Every two or three hours a teaspoonful of the following:—

℞ Tinct. aconite, 8 to 20 minims.
Tinct. veratrum viride, 4 to 10 minims.
Tinct. nux vomica, 8 to 16 minims.
Simple syrup, 4 drachms.
Water, to make 2 ounces.

The diet should be chiefly of milk, but give all the water desired.

BRONCHITIS, CHRONIC.

Treatment.—Lyon[2] believes the most effective agents are those which, after absorption, are eliminated by the respiratory passages. These consist, in greater part, of balsams, of plants containing essential oils, sulphur and its compounds, and the iodides. Of the first class, in particular are tar, balsam of Tolu, benzoin, turpentine and terpine, eucalyptol, and creasote. The inconvenience attending all is that they are usually employed by inhalation and exercise an irritant influence upon the stomach; copaiba is also very efficacious, though rarely employed. Turpentine and terpine are usually prescribed in capsules; creasote aids in getting rid of the secretion and also is inimical to tubercular bacilli; eucalyptol is also prescribed in capsules, and less likely to disturb the stomach and kidneys than turpentine; sulphur tends to congest bronchial mucous membrane; hence is only available during the period of decline of the bronchitis, when the secretion resists the action of the balsams. When there is emphysema, particularly if arteriosclerosis is present, the iodides are available, and not only liquefy the secretion, but aid in their expectoration; but they present, however, the inconveniences that ever pertain to iodic salts, and must, therefore, be given with caution.

When pulmonary congestion is marked, minute doses of ipecac and ergotine, separately or in combination (to which terpine may be added if desired), are often useful; but, as a rule, ergotine alone acts best, given in a suppository. If the lung is exceedingly full of mucus, it may be necessary to induce emesis, and for this purpose, if the patient is strong and vigorous, tartar emetic in minute doses answers well. For cough, opium, belladonna, aconite, and cherry-laurel water. When there is bronchorrhœa, full doses of ergot, henbane, or arsenic; and, for tracheitis, inhalations of menthol-vapor.

Saenger[3] prescribes golden seal; 20, 25, or 30 minims of the fluid extract four times a day, increasing the amount if it does not produce the desired results. He finds it particularly efficacious, as it mitigates the cough greatly, facilitates expectoration, and renders a muco-purulent sputum simply mucous; further, it decidedly diminishes the physical signs. Hydrastinine is not as efficacious as the fluid extract.

Dumas[4] employs from 30 to 60 drachms of sodium hyposulphite three or four times daily, and finds it not only efficacious, but also most readily elimi-

[1] St. Louis Med. and Surg. Jour., Aug. '97,
[2] Revue de Therap. Medico-Chirurg., Jan. 15, '97; Therapeutic Gaz., May 15, '97.
[3] Centralblatt für innere Medicin, May 1, '97.
[4] Revue de Thérap., March 15, '97.

nated, partly by the urine and partly by the lungs.

Arthur Davies[1] emphasizes the value of spray of wine of ipecac, $^1/_2$ to 1 drachm being used at each sitting, the patient being directed not to swallow the drug that accumulates in the mouth and throat. The class of cases most amenable are those seen early in the disease suffering from considerable dyspnœa and tenacious sputum; when dyspnœa is moderate, tar is often useful, or terebene. Potassium-iodide spray often gives encouraging results, and dyspnœa can often be relieved by the internal administration of nitroglycerin. When fœtid bronchitis and bronchiectasis are present, inhalations of creasote are very valuable.

G. Carrière[2] treated a case of streptococcic chronic bronchitis with great benefit by antistreptococcic serum. There was fever, with profuse sweats and abundant expectoration in the morning; and also the general signs of bronchitis with emphysema, together with some evidence of a cavity at the left apex. After an injection of 10 cubic centimetres of antistreptococcic serum, the temperature first rose, but soon fell to normal, and improvement set in. A fortnight later the expectoration had greatly diminished in amount, not exceeding five or six ounces, and was more mucous and less purulent. Three weeks after a second injection the patient was greatly improved; cough was slight, and expectoration only one to two ounces; the cavity-signs had disappeared. In a month he was quite well.

BURNS.

Pathology.—Of the theories that have been held as to the cause of death following burns, Tschmarko,[3] after close study of the subject, agrees with Sonnenburg that fatality is probably due to reflex lowering of vascular tone with consequent cardiac paralysis; but parenchymatous changes and degenerations in kidneys, lungs, brain, etc., must also be taken into account. In one instance numerous streptococci were found in the blood after death, which fact evidences that this class of injuries should be treated with strict regard for antisepsis.

The fact that superficial burns covering extensive areas almost always prove fatal is vividly shown in a paper recently published by Susuki, of the Imperial Japanese Navy.[4] Of the 298 killed or injured on the Japanese side during the Battle of Yalu, a large number had received burns covering an area of more than one-third of the body. Only 2 out of 57 cases of this class recovered.

Of twenty-six cases seen by Sajous after a boiler explosion on the Lake of Geneva, in 1892, twenty-two died within a few hours after the accident, although, with few exceptions, the scalds, though involving the greater part of the body, did not reach beyond the epidermic layer, excepting over the face and hands.

Treatment.—The pain is promptly relieved by a saturated solution of picric acid. This agent is antiseptic; it prevents suppuration and favors cicatrization; and, if applied at once after the accident, it may prevent the formation of blisters. It may be applied with antiseptic gauze to the burnt surface.

Miles[5] applied picric acid in 100 cases of burns, in the following form:—

℞ Picric acid, 90 grains.
Absolute alcohol, 3 ounces.
Water, 37 ounces.—M.

[1] Brit. Med. Jour., vol. i, '97.
[2] Presse Médicale, June 5, '97.
[3] Centralb. f. Chir., July 10, '97.
[4] Sei-i-Kwai, Dec., '97.
[5] British Med. Jour., July 17, '97.

Applied by means of cotton-wool and a many-tailed bandage. The subsequent dressing was guided by the discharges, temperature, etc., and the same materials used, with the precaution of never attempting to remove any adhering lint; chloroform also was used during dressing, especially when the patients were children. In many cases it was found advantageous to dress twice a week.

This method offers simplicity, painlessness, asepsis, small amount of discharge, infrequent dressing, astringent action in preventing inflammation, property of promoting growth of epithelium, rapid separation of sloughs, absence of poisoning symptoms, and economy of material. Its disadvantages are staining of hands and bed-clothes; but the former may be in part—and often wholly—obviated by smearing the hands with vaselin before, and washing with alcohol after, dressing. This mode of treatment should be suspended when inflammation has subsided and granulations formed.

Blanchard[1] found bovinine valuable in the treatment of ulceration following severe burns. In one case, twenty-five days after the accident the wounds were all healed except one on the calf—an ulcer eight inches long by four inches wide—and one on the ankle,—a strip two inches wide, running nearly around the leg; both had a very unhealthy appearance, with deep, cut edges. The ulcers were thoroughly cleaned with carbolic solution; then plain, aseptic gauze was saturated with bovinine and applied to the ulcers; this was covered with a layer of gutta-percha tissue, the whole being then covered with wadding. The following morning there was no pus, and healthy, pink granulations were springing up over the ulcers. The dressing being changed every twenty-four hours, a rapid improvement occurred, the new skin extending from the edges. Twelve days later the ulcers were entirely healed. Before using bovinine the ulcers were very painful, but after applying the blood-dressing there was immediate relief, and the patient experienced no more pain.

DIABETES.

Treatment.—Pietro Lupo[2] is an advocate of an exclusive vegetable diet, and recently reported two cases as recovered under such management.

The first was a female, and there was no longer any sugar in her urine after the tenth day of continued vegetable diet.

The second was a male who had been suffering for a year from digestive disturbances, malaise, fatigue, pain in limbs, and bronchial catarrh. He passed abundant urine, had various visual disturbances, and grew so thin as to seem a skeleton; analysis of urine showed a large percentage of sugar and also albumin. He was put on an exclusively meat diet, and in twenty days the sugar disappeared from the urine, but the other symptoms, which were torturing him so much, did not yield. He resumed the mixed diet, giving preference to meat, and the sugar reappeared, soon amounting to the former proportion, and the symptoms increased in intensity; his strength was so diminished that he could not rise from bed; he digested very poorly and suffered a general malaise; the visual disturbances were increased to such a degree that at times he was blind for some minutes; on the anterior

[1] N. Y. Med. Jour., Aug. 7, '97.
[2] Giornale Internat. d. Scien. Med.; Canadian Pract., Feb., '98.

surface of both tibial regions gangrene of the skin set in. He was next put on an exclusively vegetable regimen, when, after eighteen days, he could leave his bed and even walk about; there was now complete absence of both sugar and albumin. Soon, and gradually, all the other symptoms disappeared, the gastric condition being the first to improve.

For two years Lupo has been persuaded that uric-acid diathesis, diabetes, oxaluria, etc., are but different phases of one single morbific entity, and, since he could not discover a single case truly cured who held to a meat diet, he decided to try the other extreme and test the effect of an exclusive vegetable dietary, at the same time prohibiting all wine, beer, and spirits. The results in these two cases, as well as many others, have been of most gratifying character. In this dietary nothing of a vegetable nature is excluded, whether cooked or raw, not even edible soups, peas, beans, and grapes or other saccharine fruits. In the second case, after two months of vegetable diet, analysis of urine showed many crystals of oxalate of lime—from sixty to seventy for each field under the microscope. Finally this, too, wholly disappeared from the renal secretion.

Estay[1] treated two cases of diabetes successfully with methylene-blue. A man, 53 years old, who was passing 2500 cubic centimetres of urine per day, which contained 60 grammes of sugar per litre, was given 0.5 gramme of methylene-blue per day. The sugar diminished one-third after eight days' treatment, and had nearly disappeared four weeks later; thirst had much diminished, and 1500 cubic centimetres of urine were passed. A second case was equally satisfactory: The glucose fell from 30 grammes to 5 grammes per litre under administration of 0.1 gramme of methylene-blue four times per day.

LEAD POISONING.

Symptoms.—Hobbs[2] analyzes a number of cases of plumbism. Forty-two were mild; 8 severe and chronic; 4 nervous, of which 2 presented epilepsy followed by wrist-drop, 1 with wrist-drop and profound muscular atrophy, and 1 with acute meningitis. The duration of exposure varied, in the mild forms, from a fortnight to twelve months, and, in the severe cases, from two to fourteen years.

Hobhouse[3] chronicles a peculiar case, the poisoning having arisen from the use of a strong solution of acetate of lead for irrigation of the nasal cavities. The muscles of the upper arm were almost completely paralyzed, but they did not exhibit as marked reaction of degeneration as the extensors of the hand. The paralysis appeared in the muscles in the order of the Duchenne-Erb type of muscular atrophy.

Pathology.—Erb[4] observed nearly the same phenomena as noted by Hobhouse. It is difficult to determine what is the pathology of a condition in which the muscles perform their appropriate functions fairly well, yet refuse to react to faradism, though, as Gowers has noted, voluntary power may return before faradic irritability, which leads to the belief that they cannot be absolutely correlated.

In Hobhouse's case the deltoids and spinati reacted to faradism, though obviously much weakened, which looks as if there might be some direct action on the muscles themselves.

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[1] La Médecine Moderne, Jan. 22, '98.
[2] New York Med. Jour., March 5, '98.
[3] British Med. Jour., Feb. 19, '98.
[4] Quoted by Oliver in Allbut's System of Med., vol. ii, '97.

Treatment.—Hobbs[1] treated his cases with Epsom salt and hydrochloric acid, or with potassium iodide, also employing bromides where there was evidence of epilepsy.

OCULAR NEURALGIA.

Treatment. — Markoff[2] employs instillations of a solution of potassium cyanide, or of quinine muriate, as morphine and cocaine do not meet the therapeutic requirements; the former is ineffective, the latter too ephemeral as to results and also tends to induce neuroparalytic keratitis.

Potassium-cyanide solution should be of $^1/_3$- to $^1/_2$-per-cent. strength, and kept in a dark bottle in a cool place; as soon as it loses its characteristic odor it becomes inert. Five or 6 drops suffice for an instillation and it should be used warm.

A 10-per-cent. solution of quinine muriate is best, for, unless prepared without acid, it either causes severe smarting or irritates the eye. Morphine muriate may be combined with the solution, if desired, in the proportion of $^1/_{20}$ per cent.

No ocular neuralgia will resist more than one or two of these instillations; the underlying cause may remain, but the pain is banished. If pain is not relieved fifteen minutes after an instillation, it should be repeated.

PERNICIOUS ANÆMIA.

Symptoms. — Coleman[3] reports the case of a man, aged 67, admitted to hospital in June, '97, complaining of weakness and shortness of breath, who had been getting pale and weak for two or three months; occasional attacks of diarrhœa and vomiting. He was extremely anæmic, skin being of a pale-yellow or cream color; temperature, 99° to 101° F.; pulse frequent, soft, and compressible; systolic murmurs in aortic and pulmonary areas, and venous hum in the jugular region; dyspnœa on exertion. Urine normal in quantity; specific gravity, 1015; dark in color; acid in reaction; contained neither sugar nor albumin; gave urobilin spectrum and marked indican reaction; urea, 2 per cent.; no trace of iron; ptomaines not examined for. Had subconjunctival ecchymoses, but no retinal hæmorrhages. Blood, pale pink, very watery, did not clot readily; specific gravity, 1034; fresh specimens showed great variation in size and shape of red cells, which had no tendency to *rouleaux* formation. Hæmoglobin reduced to 30 per cent. of normal; red cells numbered 1,000,000 and subsequently 800,000 per cubic millimetre (only 20 to 17 per cent. of normal number); only 1100 white cells per cubic millimetre; but on day of death they amounted to 21,000. Stained blood-preparations showed poikilocytes, megalocytes, microcytes, and nucleated red cells; some red cells had lost their hæmoglobin (shadow-corpuscles) and others showed polychromatophilic changes. Patient had some hæmorrhage from gums. Died three weeks after admission to hospital.

Treatment.—Arsenic was tried, but had to be discontinued; gastric sedatives, intestinal antiseptics, rectal injections of water, oxygen inhalations, and nutrient enemata given.

Autopsy.—The post-mortem examination disclosed no lesion to account for the anæmia; the body was fairly-well nourished; subcutaneous fat in consid-

[1] New York Med. Jour., March 5, '98.
[2] Wratsch, No. 12, '97.
[3] Dublin Jour. Med. Science, March 1, '98.

erable quantity; lungs very anæmic; heart fatty with atheroma above aortic valves; absence of blood throughout entire vascular system; spleen firm, small, red; kidneys pale, firm capsule not adherent; liver fatty; stomach and intestines very pale, with atrophy of their walls.

PNEUMONIA.

Symptoms.—W. H. Thomson,[1] of New York, recognizes that of late years lobar pneumonia often fails to follow the definite course commonly ascribed to it. In the histories of a series of all cases occurring consecutively in Bellevue Hospital, in only 3 could it be said that they conformed to the old-fashioned type, with a definite crisis and a progressive change for the better afterward, while in 3 a partial crisis only occurred, and in 5 none at all. In 8 out of the 11 the convalescence was very tedious, and marked by a variety of constitutional symptoms, in which often the essentially toxic nature of the disease was strikingly indicated.

In this connection, Henry L. Elsner, of Syracuse,[2] presents some interesting deductions based upon careful consideration of 150 cases observed in private, consultation, and hospital practice. In many of these unusual features presented during the course of the disease, frequently making a positive diagnosis impossible, and at other times obscuring the diagnosis of pneumonia which had already been made. In 80 per cent. of the cases the characteristic chill and fever and all of the other usual symptoms followed each other in regular order, the disease running a typical course within from six to eleven days. In the other 20 per cent. vagaries showed themselves. The right lung was involved in 60 per cent. of cases; the left lung in 24 per cent.; both lungs in 16 per cent. There were 12 cases in which the apex was involved; in 7 the right apex was diseased; in 5 the left.

In 14 per cent. of cases in adults the initial chill was absent. This was commonly observed in pneumonia occurring in alcoholics, in aged and enfeebled subjects, and in most of the severer forms occurring in children. Seventy per cent. of the influenza-pneumonias were ushered in with a well-defined chill, severe, but characteristic of the ordinary form of the disease; when this occurred, the pneumonia was of much shorter duration than in cases in which the chill was absent; it was also associated with a more sthenic condition of the patient, and gave a decidedly-better prognosis. In a few cases of this type the author was surprised to find large areas of consolidated lung-tissue, sometimes remnants of recent pneumonias, without marked subjective symptoms, but with positive physical signs, in which the condition had not been suspected. Many of these cases dragged along during a number of weeks with but little sputum, although, at times, there was marked rusty expectoration during a day or two. Most made a full recovery. Microscopical examination of sputum showed the pneumococci of Fränkel and Friedländer, and frequently streptococci in abundance. It may be readily understood that these cases aroused a suspicion of existing tuberculosis. The microscope served to differentiate this latent form of pneumonia from the tuberculous infection which we have learned to fear as a complication or sequel of influenza.

[1] New York Med. Jour., Oct. 9, '97.
[2] Med. News, Jan. 8, '98.

Most difficult to diagnose were cases of central pneumonia, without chill, occurring in children, occasionally in adults, with marked gastric symptoms, slight jaundice, abdominal distress, and pain. In many of these there was but little cough during the first twenty-four hours, hurried respiration and a continuously high temperature being the only accompanying symptoms. Persistently-rapid respiration and elevation of temperature were present, even though other marked pulmonary symptoms of a subjective or objective character were not manifested. The abdominal pain and slight jaundice misled a number of physicians with whom he had seen these cases.

It may be safely concluded that the cases of pneumonia characterized by absence of chill are, as a rule, of the sthenic variety; that they run a protracted course, rarely terminating before the eleventh or thirteenth day, then usually by lysis. In a large number an alarming typhoid condition developed during the fourth or sixth day, death usually ending the scene with less evidence of carbonic-acid poisoning than is present in equally-serious sthenic cases of the disease.

Another variety which is most difficult to diagnose is the one presenting the symptom-complex of an acute meningitis. In such instances there is not a single physical sign or subjective symptom to call attention to the lungs, but a clear picture of meningitis, often without respiratory embarrassment. In these cases the deep involvement of the brain is due to pneumonococcic toxins.

Hyperpyrexia was frequently found in the sthenic forms of the disease. Of 15 hospital cases the temperature rose above 105° F. in 5. In 1 of these the temperature reached 107.5° F., remaining there almost twenty-four hours before death occurred. In 2 in which recovery occurred the temperature reached 106.2° F. In private practice, of 135 cases, the temperature rose above 105.5° F. in only 10, 7 of which occurred in children. With corresponding involvement of lung-tissue, it may be assumed that the temperature in children ranges from one and one-half to two degrees higher than in adults.

From the cases considered, Elsner concludes that the fully-developed physical signs which justify a positive diagnosis of pneumonia are rarely present before the end of the second day of the disease, and it is not infrequent to see the third day pass without the development of the characteristic breathing and râles. He witnessed several cases in which, with fully-developed physical signs, there was no expectoration.

Contrary to the belief of many who attribute to mixed infection little influence on latent tuberculosis, and who prognose favorably in cases of this class, the author states that, while there are in many of these cases no subjective complaints or objective symptoms of pulmonary tuberculosis before the appearance of the pneumonia, careful inquiry and thorough search reveal the fact that there have been foci in distant organs from which pulmonary tuberculosis proceeded or with which it was originally closely related. Many of these patients present good family histories, while their personal record strengthens the conclusion that lung-tuberculosis may be present, but dormant, awaiting the advent of some depressing agent or added pulmonary disturbance. When, by the addition of the second germ, the resisting power of

the patient who has an unsuspected tuberculosis is lowered, the result, as a rule, will be tissue-disorganization and consequent progression of the original disease.

Pathology.—J. W. Moore[1] adduces evidence sustaining the view that the micro-organisms peculiar to erysipelas, to influenza, to tuberculosis, and to enteric fever may one and all give rise to a specific pneumonia or pneumonic fever; so also may Loeffler's diphtheria bacillus and the bacillus of malignant anthrax, as well as other pathogenic bacteria.

In the form due to erysipelas, which has been called "erratic" or "vagrant" erysipelas (erysipelas migrans—the *erysipèlas ambulant* of French writers) the attack may be protracted for one or two months. In such cases, not only every part of the surface of the body, but the whole tract of mucous membranes, and even the lungs and pleuræ, may, in turn, become affected. Peter,[2] of Paris, has drawn attention to the spread of erysipelatous inflammation from the pharynx to the respiratory passages, causing, in sequence, bronchitis, bronchiolitis (capillary bronchitis), and pneumonia.

The teaching of Levy,[3] of Strassburg, that streptococcus pyogenes is an exciter at once of suppuration and of erysipelas, is now generally accepted. If we admit the identity of the pus-producing streptococcus with that of erysipelas, we at once obtain a key to the occurrence of an acute pneumonia in erysipelas; for this very bacterium—the streptococcus pyogenes—plays a part that is second to none in the production of influenza-pneumonia.

The pneumonia of influenza, while producing the ordinary physical signs of acute croupous pneumonia, is often latent in its course or accompanied by a profuse muco-purulent expectoration, with scarcely any rusty sputa. The ebbing of the strength in some of these cases in elderly people is often absolutely beyond control.

Cultivation experiments by Ribbert[4]—with the tracheal mucus, the lung-tissue, the spleen, and the kidneys—revealed, in 5 out of 8 cases, the streptococcus pyogenes or else the streptococcus erysipelatosus (which has been shown to be identical with the former), the presence of which could be demonstrated in the sputum also of influenza patients. His investigations, on the whole, evidenced that, in all cases in which micro-organisms were at all capable of demonstration, the streptococcus pyogenes was to be found. Only once was there in addition a coccus which bore marked resemblance to the diplococcus pneumoniæ, and probably represented a modification of the same.

Finkler[5] pointed out that the resemblance of this form of pneumonia to erysipelas consists not alone in the anatomical characters of the inflammatory process, but also in the fact that both diseases depend on the presence of streptococci. Finkler looks upon this streptococcic pneumonia as a localization of the exciting cause of influenza in the lungs due, in Moore's opinion, to a secondary infection, for which the influenza merely laid the foundation.

In acute phthisis or scrofulous pneumonia, the inflammatory nature of the lesions in the lung or lungs and the rarity of miliary tubercle are among the characteristics.

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[1] Brit. Med. Jour., Jan. 1, '98.
[2] "Angines," Dictionnaire Encyclopédique des Sciences Médicales, tome iv, p. 720.
[3] "Ueber die Mikro-organismen der Eiterung," Arch. f. experiment. Path. u. Pharm., 29, p. 135.
[4] Deut. med. Woch., No. 15, '90.
[5] Deut. med. Woch., No. 5, '90.

In a recent work Muir and Ritchie say that most observers will agree with Gaffky in attributing any failure to find typhoid bacilli in the organs of a typhoid patient to the difficulties of the search; they further state that in the lungs there may be patches of congestion and of acute broncho-pneumonia. In these, typhoid bacilli may sometimes be observed, but evidence of a toxic action depressing the powers of resistance of the lung-tissue is found in the fact that the pneumococcus is frequently found in such complications of enteric fever.

The above quotations and many others submitted by Moore, ably sustain his view that a true pneumonitis may occur in any one of the four diseases with which his communication deals, namely: erysipelas, influenza, tuberculosis, and enteric fever.

Dürck[1] examined the lungs of patients who had died from diseases other than pneumonia, and found that the pneumococcus predominated, and, further, that these could be obtained even in the lungs of animals freshly killed. This warranted the conclusion that some must be present at times in the air-passages of healthy men. He then studied the effect of cold by keeping animals for twenty-four hours or more at a temperature of 37° to 39.5° C., and afterward plunging them into ice-cold water for about five minutes. Pneumonia was always produced, and sometimes the lobar pneumonia in the red-hepatization stage, with fibrinous exudation in the air-cells. The presence of the pneumococcus in healthy persons and the effect of cooling animals explain, he thinks, the chain of events in the development of an attack. Exposure to a chill plays an important part in depressing the vitality; the organisms are thereby allowed to invade the lung. Histologically, there was no association of a particular organism with a particular histological change to be found. The pneumococcus might be found in large numbers where there was no trace of fibrinous exudation, as well as in cases where fibrin was abundant; so also in the case of other organisms.

Andrew H. Smith,[2] while recognizing that the discovery of the pneumococcus enables us to look upon croupous pneumonia as an infectious disease depending upon the action of this bacterium, says the manner in which the micro-organism brings about the local and general condition remains unexplained. Although the pneumococcus may find its way into the blood- and lymph-vessels, the most likely channel of infection he thinks is by the air-passages. He sustains this view by the well-known fact that two-thirds of the cases of foreign bodies passing down the trachea finds their way into the right bronchus, pneumonia being common to the right side.

In a series of experiments Dürck[1] found that intratracheal injection of the pneumococcus or other bacteria, alone, was insufficient to cause pneumonia, but that such resulted when irritating dust was also injected.

Constanzo Zenoni[3] observed a case of pneumonia secondary to epididymitis in which very large streptococci, forming long chains, were found in the pleural exudate. He, therefore, concludes that his investigations may be taken as favorable to the theory of the homology of the various forms of streptococci.

Toxæmia, according to Osler,[4] is the most common cause of death; the symp-

[1] Deut. Arch. f. klin. Med., June, '97.
[2] Med. Record, Jan. 2, '97.
[3] Centralb. f. Bakt. Parasit. u. Inf., Jan. 9, '97.
[4] Amer. Jour. Med. Sciences, Jan., '97.

toms may develop early and cause, from the outset, severe cerebral symptoms. The toxæmia may be severe and fatal even with consolidation of only one-half a lobe, being, in reality, due to the action of the specific toxins on the heart-centres rather than on the muscular substance of the organ itself. The author contends that the toxæmia outweighs all other elements in the prognosis of pneumonia.

Royal Amidon[1] argues that the obstruction of the pulmonary circulation is not commensurate with pulmonary consolidation. The intense and general pulmonary congestion often present offers sufficient resistance to the pulmonary circulation to explain all the symptoms dependent thereon. The author reports cases in which spontaneous hæmorrhage was followed by speedy improvement.

Prognosis.—Osler[2] considers the general death-rate for pneumonia to be 20 to 30 per cent. Above the age of 60 the mortality is from 50 to 80 per cent., while young people are prone to recover. The same is the case in robust healthy adults; for instance, the death-rate in the German army in over 40,000 cases was only 3.6 per cent. General debility, poor food, and alcoholism greatly increase the danger.

Weismayer[3] thinks that examination of the sputum in cases of pneumonia is of practical importance. The prognosis is, in general, more unfavorable when streptococci are found; it increases the length of the illness and adds to the danger of abscess-formation and of secondary infection by tubercle bacilli.

Treatment.—The practical deduction from both clinical and bacteriological observations of the facts of pneumonia emphasizes anew, according to W. H. Thomson,[4] the utter futility of treating diseases according to their names. From many clinicians we hear that it is doubtful whether the treatment of pneumonia is any more successful now than it was thirty years ago. This doubt he fully shares; but one reason may be that pneumonia is too much regard as pneumonia and nothing else, instead of being an infectious disease which produces very differing effects in those attacked according to very varying conditions in the infection. Moreover, at the very outset, it is unsatisfactory to treat a case of poisoning by dealing with its effects or symptoms instead of aiming to neutralize the poison itself. Time alone will show whether an antitoxin can be furnished to the profession, as it is from this quarter only, he believes, that any real improvement in the treatment of pneumonia can be expected. Until then we are left only to dealing with indications.

The treatment of eleven cases, all of which recovered, was, first, to lessen the vascular excitement of the early stages—*i.e.*, for the first day or so—by aconite and sweet spirit of nitrous ether. As to the high temperature, he did not feel solicitous if it failed to rise above 106° F., considering the pyrexia rather beneficial than otherwise. His chief task, as will be seen by the records, was to deal with the threatened heart-failure; this danger, in a number of them, continuing for such long periods. Besides peptonized food, his chief medicinal recourse was to a prescription of equal parts of the tinctures of nux vomica, digitalis, and strophanthus, of which 25 to 30 drops were given every three hours.

[1] Med. News, March 6, '97.
[2] Amer. Jour. Med. Sciences, Jan., '97.
[3] Zeit. f. klin. Med., B. 23, Supplement, '97.
[4] N. Y. Med. Jour., Oct. 9, '97.

Caffeine, with Hoffmann's anodyne, was also used, and the tincture of iron muriate. But the most striking effect noted, when these failed to act satisfactorily, was from doses of 7 to 10 grains of camphor, given hypodermically dissolved in sterilized olive-oil. In one case it is doubtful if the patient would have been saved without these injections, as his pulse responded to nothing else.

Arthur Foxwell[1] emphasizes the fact that no disease calls more frequently for active interference. A cardiac dilatation, if noted early, may be remedied by the use of strychnine, but twelve hours later it may defy all efforts. Twenty-four hours' continuance of high tension may fatally exhaust a heart which would have struggled on had this been cut short twelve hours before.

Careful, repeated physical examination should be made, which need not disturb the patient, and the results of this examination should, in every instance, be recorded at the time in the bedroom; otherwise, they lose most of their value, for it is only by the careful comparison of these results that the progress of the case can be estimated with any accuracy.

Digitalis.—According to Huchard,[2] diuresis is established promptly by digitalis, and, during four or five days, it contributes to the elimination of all the toxins produced by the infectious disease. Gingeot and Deguy[2] were able to verify this in parallel charts of the urine and the temperature; when one fell the other rose. Congestion seems to disappear more rapidly and the exudation is more rapidly absorbed. Pneumonia is dangerous through the exhaustion of the organism; although the disease is in the lungs, the danger is to the heart and the nervous system.

Under the influence of digitalis, as is well known, the urine increases. There is an abundant precipitate of urates; the temperature falls and becomes regular; the pulse normal.

Rubel,[3] in commenting upon the mortality reported as being that of pneumonia under large doses of digitalis (2.6 per cent. in 1192 cases), contends that in the young, robust men the mortality is always low. Petrescu claims that with this method the disease could be arrested in three days. Rubel, who tried the method, found that apyrexia was established in from seven to ten days, and that convalescence was not shortened. Instances of poisoning by this method being on record, he advises that the method be dropped.

Gingeot and Deguy[2] report twelve cases of pneumonia due to influenza in which they employed digitalis with most excellent results. No deaths occurred at all, while in two cases of double pneumonia the favorable results were striking. The day after administration of the digitalis the patients experienced a sensation of well-being which was quite peculiar; if delirium existed it ceased, and the albuminuria diminished and finally disappeared. The antithermic action was marked; the heart's action became slower; the pulse became stronger, and the arterial tension was increased.

Water.—Elmer Lee[4] contends that when water is introduced into the circulation in sufficiently large quantities and at regular, suitable intervals, inflammatory processes are checked and injury to delicate tissues greatly lessened. In inflammation of the cellular and mu-

[1] Treatment, Aug. 26, '97.
[2] Revue de Méd., March 10, '97.
[3] Wratsch, No. 2, '97.
[4] Med. Times, Dec., '97.

cous structures there is great loss of the fluid element of the blood. Water maintains the volume of the circulating fluid and diminishes the danger of fatal congestion.

Baruch[1] highly recommends baths for children and wet compresses for adults. For children the bath is administered alongside the bed, as in typhoid fever. Beginning with 95° F., each bath may be reduced a few degrees until the patient becomes accustomed to it, repeating every four hours until the temperature remains below 102.5° F. The bath-temperature should rarely be below 85° F., the patient should remain in it from eight to ten minutes, and friction after the bath is required to prevent chilling. For adults the wet compress, wrung out of water at 60° F., is wrapped around the chest and covered with flannel. It should be changed every half-hour if the patient's temperature is over 102.5° F.; every hour if the temperature is below this. It should be discontinued when the temperature falls to 99.5° F.

Klein[2] relieves dyspnœa by means of cold compresses: A napkin large enough to reach from the top of the sternum to the stomach and to cover the anterior and both lateral surfaces of the chest is dipped in cold water at a temperature of 46° to 50° F. and applied to the chest. At the end of five minutes it is replaced by a cold one, and this treatment is continued for an hour. After a half-hour's rest three similar series are carried out. The treatment is said to be free from danger and acceptable to the patients.

Oxygen.—H. M. Fisher[3] mentions a case attended with great prostration from the first and which resisted free stimulation. No marked reaction was noted till oxygen inhalations had been given almost continuously for forty-eight hours, when distinct improvement in all the symptoms was observed.

Venesection. — Royal Amidon[4] attributes to neglect of blood-letting in pneumonia the increased mortality.

Arthur Foxwell[5] recommends venesection at the elbow, withdrawing 10 ounces of blood in cases where the disease is ushered in with a pulmonary hyperæmia so intense and wide-spread that its suddenness completely overthrows the right heart, and the patient lies gasping, livid, and with much-distended veins.

Strapping.—In a case of pneumonia with severe pain in the side, in which he could not resort to the injections of morphine, Solberg[6] applied strips of adhesive plaster, as in cases of fractured rib. Even the dyspnœa and the cough seemed to be mitigated. The strips used were of American adhesive plaster, not more than an inch and a half wide.

Chloroform. — Andrew H. Smith[7] argues that the most natural direction for therapeutic effort would be that of attempting to render the exudate inimical to the development of micrococci, and recommends inhalations of chloroform for this purpose.

STAMMERING.

Etiology.—Holger Mygind, of Copenhagen,[8] examined 140 pupils of the State School for Stammerers, 117 of whom (or 84 per cent.) were males. He concludes that a predisposition to this fault exists during the first two years of life, and sometimes also during the two succeed-

[1] Medical News, Jan. 2, '97.
[2] Bull. Gén. de Thér., 6e liv., p. 270, '97.
[3] New York Med. Jour., Sept. 11, '97.
[4] Medical News, March 6, '97.
[5] Treatment, Aug. 26, '97.
[6] Deutsche med. Zeit., Aug. 5, '97.
[7] Med. Record, Jan. 2, '98.
[8] Hospitalstidende, p. 305, '97.

ing years; also between the ages of six and eight, and at puberty. One-fifth of the 140 examined began to give evidence of this fault in speech before they completed their second year, and nearly one-half between the first and beginning of the fifth year. The great majority of those who commenced to stammer during the third or fourth year had learned to speak late: nearly one-half learned to speak after the second year and one-third after the third year. Of those who acquire the defect between the sixth and eighth years, Mygind thinks that they were influenced by surroundings, inasmuch as one-half of the pupils at the State school who entered the institution at this age became worse for awhile. As most of those examined were children, the influence of puberty could not be determined.

Heredity.—Stammering appears to be an hereditary or family affection. Fifty-nine pupils (or 42 per cent.), among these 6 pairs of brothers and sisters, had relatives who stammered, the number of the latter, so far as ascertained, amounting to 83, and 44 of whom bore the relations of sisters and brothers to pupils, and 23 of fathers; altogether, 17 per cent. of the fathers had been stammerers. It cannot be denied, however, that moral contagion was a factor in some instances. Again, 9 per cent. of pupils had insane relatives; of 134 fathers, 3 per cent. were insane. Four per cent., among which were 2 brothers and 2 sisters, had idiotic relatives. Twenty-three (or 16 per cent.), counting 2 brothers and sisters, had epileptic relatives. Eighteen pupils had lost brothers and sisters from convulsions, not of epileptic character. Three had chorea in their families; and 44 possessed relatives suffering with maladies of neurasthenic or hysterical nature; one-fourth of all the mothers came in this latter category. Twenty-seven pupils had 34 migrainic relatives, of whom 23 were mothers and 3 fathers. Eight per cent. of pupils had relatives prone to asthmatic attacks. Two had deaf-and-dumb relatives. Adenoid vegetations existed in 38 per cent. of pupils, and in several the defect in speech disappeared with the removal of the growths. Only 4 gave evidence of rickets, and 3 were scrofulous. Three of the fathers were alcoholic *habitués.* Twenty-one per cent. of pupils exhibited evidences of pulmonary tuberculosis; 7 per cent.—a total of 9—suffered with deafness; 1 had harelip; and 15—10 per cent.—were of very low grade of intelligence.

The occasional causes are of lesser significance. In 16 of the cases intercourse with other stammerers was manifestly the chief factor in producing their own speech-defects; but even in half of these there was evidence of nervous disease existing among immediate relatives. In 9 per cent. of these cases, also, diseases of infectious origin were cited as causes for stammering, though there must likewise be admitted the existence of predisposition. Contusion of head was assumed to be a cause in 1 instance; and mental impression as induced by fright in 6 cases.

Finally Mygind holds that stammering generally is an evidence of degeneration, hereditary or acquired, though all stammerers are not necessarily degenerate.

Makuen, of Philadelphia,[1] in a measure corroborates Mygind. In 15 per cent. of cases fright was active in causation; in 32 per cent. there were stammerers

[1] Ann. Gynæcol. and Pædiat., Feb., '98.

among relatives; in 30 per cent. the origin might be traced to association with other stammerers and imitation.

Much depends upon the patient. Every case may be cured if he will do the work necessary. Stammering is purely a neuro-muscular habit, and the trouble exists in the cerebral mechanism or so-called speech-centres; in the peripheral mechanism of speech, including the respiration or the vocal and the oral articulating organs; or in the nerve-tracts uniting the central with the peripheral mechanism.

Every stammerer is nervous, and many attribute the affliction to nervousness; but so completely does the neurotic element disappear oftentimes after the stammering has ceased, that it would seem in many cases that the speech-defect is the cause and nervousness a result.

TÆNIA.

Treatment.—Carratu[1] notes that the internal administration of chloroform often removes tape-worm after all other anthelmintics, or so-called tæniafuges, have failed. Place the patient on moderate diet for two days—it is not necessary he should fast—and then, in the course of eight hours administer from $^3/_4$ to 1 drachm of pure chloroform in syrupy vehicle; *i.e.*, one-fourth of this amount is to be given every two hours until all is taken. Subsequently a dose of castor-oil should be ingested. No unpleasant effects supervene.

Watson[2] suggests the following: Rub 2 minims of croton-oil with 2 drachms of powdered gum arabic, then add 1 drachm of extract of male fern. To this emulsion add a decoction of pomegranate-root bark, 4 drachms; pumpkin-seed, 30 grains; fresh ergot, powdered, 30 grains; in 8 ounces of water. The whole at one dose. In making a decoction it should be boiled for fifteen minutes, then carefully strained.

Sass[3] calls attention anew to the use of black oxide of copper, first recommended by Hager, in 1888, as a remedy for tape-worm. It is given in the form of pills made as follows:—

℞ Black oxide of copper, 90 grains.
Precipitated chalk, 30 grains.
Kaolin, 180 grains.
Glycerin, 150 grains.

For 120 pills, of which 8 to 12 are to be taken daily. For a week, the patient takes 2 pills four times a day, and during all this time must abstain from everything acid. At the end of the two weeks a full dose of castor-oil is given.

For children the following is employed:—

℞ Black oxide of copper, 75 grains.
Precipitated chalk, 15 grains.
Mngnesium carbonate, 15 grains.
Tragacanth gum, 150 grains.
Glycerin, 75 grains.
White sugar, 600 grains.
Water, q. s.

For 50 pastilles, of which 2 or 3 may be taken daily. At the end of three or four days the *débris* of the tænia appear in the stools, and the symptoms caused by it disappear. This treatment requires no rest in bed, and it is particularly recommended for cases that have proved refractory to other remedies.

TYPHOID FEVER.

Dietetics.—A. G. Barrs, of Leeds,[4] pleads for a less restricted diet, and at

[1] Gior. Med. del Reg. Esercito; British Med Jour., Dec. 4, '97.
[2] Medical Age, Oct. 25, '97.
[3] Medish Weekblad, No. 20, '97.
[4] British Med. Jour., Jan. 16, '97.

the same time states that many practitioners have learned—clinically, practically, and to their sorrow—that milk is neither an ideal nor a safe diet in all cases. Unfortunately, because of its fluid character, supposed innocuousness, and the general belief that it presents a maximum of nourishing qualities, milk is too often selected as a routine diet. As perforation is, by far, the most important lesion to fear, it has been assumed that any solid food is an element of danger; but the fact remains that, if the stomach is digesting and the food digestible, it will reach the seat of the lesion in a suitable state of fluidity regardless of its former solidity; but, if the stomach is not digesting and the patient is not hungry, it is an act of folly to stuff him. Again, milk at a certain stage of digestion is as much of a solid as is meat,—a fact commonly lost sight of,—and thus not infrequently passes into the intestines and on to the typhoid lesion in a condition that renders it a highly-irritating mass, and consequently it is not, under such circumstances, without a considerable element of danger. Finally, when the stomach is at all active, a diet consisting of normal proportions of wholesome solid food (meat and bread) is much less likely to give rise to an excess of intestinal gas than a diet of milk or one consisting exclusively of fluids. Solid food cannot alone be a cause of perforation, as some have assumed, since, if this were true, perforative accidents could not, as they now often do, occur during a strictly-regulated fluid diet.

Frederick Shattuck[1] upholds Barrs in as far as allowing considerable latitude in the matter of the diet of typhoid patients. He desires it specially understood that by the term "latitude" he does not mean "indiscriminate." The following is suggested:—

Milk, hot or cold, with or without salt, diluted with lime-water; soda-water, Apollinaris water, Vichy; peptonized milk, cream and water, milk with white of egg; slip, buttermilk, koumiss, matzoon, milk-whey; milk with tea, coffee, and cocoa.

Beef, veal, chicken, tomato, potato, oyster, mutton, pea, or bean-soup, carefully strained and thickened with rice (powdered), arrow-root, flour, milk or cream, egg, and barley.

Horlick's food, Mellin's food, malted milk, carnipeptone, bovinine, and somatose.

Beef-juice.

Strained cornmeal, cracker, flour, barley-water, or toast-water gruel; albumin, and water with lemon-juice.

Ice-cream.

Eggs, soft boiled or raw; eggnog.

Lean meat finely minced, scraped beef, the soft part of raw oysters, soft crackers with milk or broth, soft puddings without raisins, soft toast without crust, *blanc-mange*, wine-jelly, apple-sauce, and maccaroni.

For a number of years he adhered as strictly as possible to an exclusively-milk diet until at least a week had elapsed from the date of the first normal evening temperature; closed his ears to the clamors of adults, and eyes and heart to the tears of children. "It was only recently, comparatively, in the general opinion of the profession that relapse is or may be due to errors in diet."

A fresh access of fever has led many to carefully inquire into the kindness of officious friends, and it was often proved that forbidden fruit, actually or metaphorically, had been brought in by

[1] Jour. Amer. Med. Assoc., July 10, '97.

a visitor, which appeared an entirely satisfactory explanation; when proof could not be had, the fact of relapse was strong presumptive evidence of sin. Better is known now, and while it is recognized that errors in diet may produce fever, as may fatigue or excitement in convalescence from any severe disease, it is not believed that they can induce fresh invasion from within.

Shattuck further remarks: "One of the things which set me thinking on this question of diet was the favorable course run by several acute febrile cases for whom was ordered a full diet because they were weak, believing at the time of so doing that typhoid could be excluded, but being forced to the conclusion later that only typhoid fever could explain the whole course of the disease. These patients did perfectly well, were happier, and convalesced more rapidly than my recognized typhoid cases fed exclusively on milk. For five years now I have been enlarging the diet of my typhoid cases and have seen no reason to regret this course, but, on the contrary, found cause for satisfaction."

So, too, William Ewart[1] advocates a "middle course" in respect to diet in typhoid. While he believes the best diet is a simple one and that safety lies in strict adherence to approved routine, he has saved many lives from the risks which often accrue to too much zeal, and holds "routine based upon general opinion which itself is derived from exclusively the operation of the routine, is not a progressing method or a convincing argument." A definite assurance that relapses, while apt to occur with other diets, never did occur with a uniform and exclusive milk diet, would at once set at rest all controversy, yet the absence of any such assurance is evidence that the question should be carefully studied and that we "should bear in mind that clinical improvements, however important, cannot, at their inception, command the support of large statistics."

The primary indication in typhoid is to keep up the vitality of the tissues by feeding the patient according to the very best method; and how to do this effectually, with judgment and with safety, and with due regard to the indications of individual instances, is the daily problem. Milk, specially designed for the needs of growing infancy, can hardly be regarded as also adjusted with perfect nicety either for the wear and tear of adult life or for the wasting effects of continued fevers. The excessive muscular wasting observed in typhoid fever does not argue the necessity of a mainly nitrogenous diet, but rather points to deficiency in the daily allowance of fuel, a deficiency which must be made good from some source, even at the expense of so much muscle. Milk supplies much, but not all, that is required; it should, and can, safely, be supplemented with small and inoffensive adjuncts which, day by day, will make up the difference. A little more carbohydrate than milk contains may save a large and unnecessary waste of muscle. And one can do much more than economize weight, if at the same time he is careful not entirely to withhold the fresh vegetable principles which are universally held to be essential to the making of the best blood.

As soon as the typhoid condition has been overcome by medication,—and this is most often the work of a very few days—malt preparations are well borne,

[1] British Med. Jour., May 1, '97.

as is yelk of egg (and a little later the white also) or calf's-foot or chicken jelly. Later, *blanc-mange* or custard; honey, which is specially indicated in constipation; even chocolate may be enjoyed; and, as digestion gains strength, the juice of oranges, the pulp of ripe grapes, and baked apples supply the grateful and healing fresh, vegetable principles. Patients steadily improve under such diet, and their general well-being speaks therefor. In a young woman admitted to hospital after ten days' exclusive, but insufficient, milk-supply in a typhoid and somewhat wasted condition, Ewart obtained, by this plan, a result which he had never noticed before during the continuance of the pyrexia, namely: an ample return of subcutaneous fat.

Ussery, of St. Louis,[1] insists that bananas are excellent food for typhoid patients: a claim one is inclined to theoretically indorse if the fruit is properly ripe, since, pound for pound, this fruit contains four times as much nourishment as does ordinary wheat-flour. Again, it is not too solid; it is almost completely absorbed before reaching the ileum, and does not yield sufficient waste to irritate the intensely inflamed and engorged membrane of the small intestines.

[1] Medical News, Jan. 27, '98.

Editorial.

DIGITALIS: ITS USE AND ABUSE. NON-UTILITY OF STUDIES ON LOWER ANIMALS.

This drug has been before the medical public for about three hundred and sixty years, and, since 1775 at least, has furnished the subject-matter for many voluminous and interesting essays; yet, strange to say, the majority of medical men appear to be as much in the dark regarding its physiological relations and rational administration as were their forefathers of two and three generations gone.

Up to within a quarter of a century digitalis was commonly described as an adenagic, antiphlogistic, antipyretic, and heart-sedative, but chiefly commended as a diuretic, though admittedly possessed of considerable unreliability. Indeed, so much was said and claimed for the drug that the expectations of the newly-fledged practitioner were placed entirely too high, for theoretical assumption and speculation generally usurped the place of rational, careful, and practical study. And even to-day, though modern research seems to have conclusively established that digitalis is not a cardiac sedative and depressant, but, instead, a tonic and stimulant, this knowledge accrues less to a better understanding of the drug than to fuller comprehension of physiological problems connected with the circulatory apparatus. There are many who yet hold to sedation of the heart by digitalis, and the agent is still prescribed in a most empirical way for all forms and classes

of cardiac and arterial disease, from syncope and simple hypertrophy up to aneurism and exophthalmic goitre.

The actions of digitalis are varied and multiple, being materially modified by many causes: such as dosage; temperature, humidity, and other climatic surroundings; presence or absence of the febrile state; condition of excretion; idiosyncrasy (and there is no remedial agent toward which persons are more generally idiosyncratic, oftentimes unaccountably so, and in varying degrees at different periods). Again, the drug often has an elective affinity, so to speak, for certain organs and tissues, according to the character of the preparation employed; notably, too, stimulant action upon the heart and circulation may not be made manifest until twenty-four or thirty-six hours after the initial dose, while, on the other hand, the same action may persist from three to seven days after the medicament has been withdrawn.

Sometimes supposed idiosyncrasy may lie wholly with the prescriber, owing to ignorance of the character of the preparation employed and misconception of "affinities," both physiological and pharmacological. Every practitioner should realize that the average tincture as had in shops is usually inert, being, on the score of cheapness, derived from dried and pressed leaves of uncertain age, plucked perhaps at any season and stage of the plant's growth, and cured without method. It is well understood by pharmacologists that little or no virtues accrue to foliage that is not of the second year of growth of the uncultivated fox-glove, which must be gathered just before the close of the season of flowering, and especially dried in the dark at a carefully-regulated temperature; also that the best digitalis, after ten or twelve months, even if kept in well-guarded and stoppered tins and jars, will have parted with most of its virtues. Hence foreign pharmacopœias lay particular stress on selecting freshly-gathered leaves, especially for preparing infusions, tinctures, and fluid extracts. Adulteration is another source of uncertainty and annoyance, the leaves of the black nightshade, black mullein, and even of the common potato, or all three, being utilized for this purpose, though fortunately all are easily detected by making a concentrated infusion with a suspected leaf and testing on an opalescent plate by means of a drop of ferric chloride: if the reaction is a deep green, the leaf is of the fox-glove; if blue, of an adulterant.

Tinctures made with the aid of fluid extracts do not, by any means, represent the properties of the drug in the same degree as those had by means of maceration and percolation of the freshly-gathered leaves. Neither do the solid and fluid extracts, or abstracts, unless made by the substitution process and with the avoidance of any but the most gentle or moderate heat, represent the true virtue of digitalis; a brown or black hue to the exclusion of green color is always *prima facie* evidence of more or less improper manufacture. The tinctures of the B. P.

and U. S. P. vary slightly as to the amount and strength of contained spirit, while the proportions of the drug are, respectively, 3 to 24, and 3 to 20. Notably, the most reliable tinctures are those had from German, eclectic, or homœopathic sources, all of which are made from fresh undried leaves: the two former by maceration and percolation, the latter by expression of juice and subsequent mingling with an equal proportion, by weight, of 87° alcohol. Two other excellent preparations that meet with favor in Europe are the ethereal tincture—which is twice the strength of the alcoholic tincture of the U. S. P.—and acetum digitalis, —made by macerating 1 ounce of leaves in 9 ounces of vinegar and 1 of alcohol.

Tablets or tablet triturates, made with the so-called "concentration," digitalisin, are dangerous, since this preparation is, by no means, constant as to strength. Tablets, also, purporting to embody the tincture or fluid extract of the drug are, for reasons obvious, usually inert, and hence not to be trusted.

Latterly the so-called "active principles" have been widely exploited, chiefly to the benefit of manufacturers and dealers, but none that are not deemed non-representative or inert are of a character to deserve confidence, at least not until more precise knowledge accrues thereto. All are glucosides, and not alkaloids as has been assumed, and notoriously are not constant as to either therapeutic or physical properties, being capable of further chemical subdivision. Thus digitoxin, which has been deemed most reliable because it appears as a component constituent of all except digitonin and digitin (the latter physiologically inert) yields digitoxiresin and a body as yet not fully identified and consequently unnamed. We can only re-echo the opinion of Roth, that digitalin, digitalein, digitaline, digitaleine, digitalin verum, digitoxin, digitaliresin, and digitoxiresin "are not to be recommended," since they are as variable in strength and action as they are in dosage and titles, and often the same (supposed) precise agent is greatly at variance as regards different samples.[1]

One of the greatest bugbears accruing to digitalis is its supposed "cumulative action," echoed and re-echoed for more than a century, and which has led to overcautious use, even at times when administration was demanded boldly and in large doses. In truth, there is no such thing as "cumulative action," except in a way any drug may become cumulative owing to ignorance or carelessness on the part of the prescriber tending to a disregard of the problems of elimination. When the blood-pressure is at its height, the functions of excretion as carried on by the kidneys may be arrested, and likewise the functions of the skin, and it is to the inhibition of elimination that any untoward ("cumulative") action is due;

[1] Some idea of the ignorance and confusion that exists regarding these glucosides may be had from the variance of authorities as to dosage; thus the dose of digitoxin as given by different authors is $\frac{1}{250}$ to $\frac{1}{125}$ grain and $\frac{1}{150}$ to $\frac{1}{80}$ grain. Crystallized digitaline or digitalein exhibits a minimum of $\frac{1}{1300}$ grain or maximum of $\frac{1}{32}$ grain, among seven authorities; and digitalin verum from $\frac{1}{300}$ grain to $\frac{1}{12}$ grain among six authorities.

and even this may often be prevented by exhibiting the drug in conjunction with some more direct stimulant to the renal organs.

That digitalis is not the highly dangerous remedy generally surmised the common every-day literature of the drug fully attests. The late Mr. Jones, of the Island of Jersey, was wont to give the tincture, in $^1/_2$-ounce doses repeated every fourth hour, in delirium tremens, and thereby successfully treated some seventy cases without a single untoward result; and scores of practitioners have borne evidence as to the value and utility of the method, including Ringer and Sainsbury as recently as last year. Mr. King, of Suffolk, Eng., was accustomed to administer like doses for the purpose of combating acute inflammation: he sometimes gave 2 drachms of tincture to children under 12 months old; and in all his extensive experiences never witnessed a single dangerous symptom. Pereira declares he saw 20 drops of tincture prescribed three times daily for a fortnight to an infant suffering from hydrocephalus, and that he, himself, frequently gave a drachm "of the best quality" to an adult thrice daily for two weeks or more "without observing any marked effects." And, finally, H. C. Wood asserts that during an experience of twenty-five years, often with very large doses, he "never saw a case where digitalis seemed to do serious harm by a toxic action."

Unfortunately a large share of the information that accrues to digitalis is of a speculative or presumptive character, being based upon experiments conducted through the medium of small mammals, birds, and batrachians; but what reliance can be placed upon any evidence derived from procedures involving guinea-pigs, rabbits or hares, frogs, etc.? The first two are possessed of exceedingly-sensitive nervous organisms, and their timidity has passed into proverbs and wise saws; they often die under manipulation, purely from fright. It may here be remarked that the most trifling shock may prove fatal, as when shot or snared, and they do not die as the result of the wound or noose, but of ruptured hearts.[1]

Experiments on birds and frogs may be even more misleading than those on mammals. There are no parallels between them and the human subject, as to food, physiological processes, habits of life, or elimination of waste. The bird presents a stomach practically devoid of absorptive powers, and the digestive functions are adapted to the form of food; it also has a three-chambered instead of a four-chambered heart, an anatomical peculiarity that invariably carries with it the excretion of solid urine. Even more remarkable are the relations of the two-chambered hearts of batrachians and reptiles. The latter are termed "cold-

[1] Of twenty rabbits selected at random in market that had been shot, seventeen exhibited wounds that could not in any way account directly for death, and the seventeen all had ruptured left ventricles. A single shot-pellet that penetrates the skin barely enough to produce slight ecchymoses of the tissues beneath is often fatal to the hare, and, when the creature is snared, there is often evidence the wire had not performed its work when death occurred, and here, inevitably the heart-ventricle is found torn. A cart-horse in Dumfries, Scotland, 7 years old, fell dead on viewing, for the first time, a railway-engine, and post-mortem revealed a ruptured heart, with no traces of disease anywhere.

blooded" because of the low degree of bodily heat that obtains, but the normal temperature of the creature as influenced by its circulation is no evidence of susceptibility or impressionability of the nervous system, or of the effects produced upon the muscular fibres of the heart. The severed heart of the common rat, a "warm-blooded" animal, responds less promptly to the stimulus of digitalis than the heart of the frog, and the batrachian, all things being equal, may be more promptly aroused from an anæsthesia than the rodent, through irritants applied to viscera or to abdominal or thoracic walls. Of what value, then, are the so-called researches undertaken on the lower forms of life in determining the impress any one drug may have on man?

Again, the latest contribution to the literature of digitalis asks us to believe, as the result of a single experiment with a litter of ten sucking pigs—five being employed as control—that the drug materially increases the muscular power of the healthy heart; even renders its fibres larger, more tense, yet elastic; and imbues them with greater strength. This may all be true, and is announced in perfect good faith, doubtless; but it must also be added that such announcement is, to say the least, premature. No worker in the physiological laboratory need be told that therein coincidences are much more common than facts, or that it is only by a series of carefully-conducted negatives that the true value of the positive can be arrived at. A score of similarly conducted experiments would prove nothing. And why should the genus *Sus* and its infantile representatives be selected for such purpose? Notoriously the hog has little in common with man aside from an omnivorous appetite and innate faculty for "making a beast of himself." The fact is that digitalis has no such action on the adult porcine as it has upon the human subject; even its toxicity is much less, and sometimes not at all apparent, for *Sus scrofa* ingests the fresh plant with impunity in quantities that would be speedily fatal to two or perhaps three equines; and, reasoning from analogy, sucklings should be even more immune. It is well understood also, by comparative anatomists and physiologists, that the muscular development, cardiac and otherwise, presents a great lack of uniformity in young pachyderms of the same age, and the same litter, than any other order of mammals.

The faults of digitalis, as before intimated, are usually those of the prescriber rather than such as may be attributed to the drug itself, for the latter requires to be studied anew in each case where it is administered, and its effects carefully watched and noted. In the lack of such precautions may be found a clew to the fact that in the same precise (as supposed) pathological conditions, the remedy is praised by a host of observers, and as vigorously condemned by an equal number of colleagues. Also, why the drug is lauded in the treatment of aneurism and as sedulously warned against; why it is both recommended and condemned in simple

cardiac hypertrophy and in aortic obstruction and aortic regurgitation; why one declares it tends to increase the elimination of urinary solids, and another that the salts under its use are materially lessened in quantity.

Of all the abuses of digitalis not one is so great, or so frequently and fatally detrimental, as that accruing to its use as an antipyretic. Why it should ever be prescribed as an antithermic purely is a matter of wonderment, considering there are so many agents of this class, agents the actions of which are definitely known, whose effects can be carefully gauged, and, moreover, afford positive assurance of a power to secure self-elimination without unduly taxing any vital organ or disordering physiological compensations. That the drug will powerfully affect febrile temperature is undisputed, and the measure of this temperature may, and is apt to be, the measure of its effect; but its antithermic action, at the same time, induces a rise of blood-pressure more or less proportionate, without any increase of elimination of morbid products. Is not fever itself a physiological process,—an attempt of nature to overcome toxic and effete materials,—and is not the sudden decline of temperature without provision for increased excretion and elimination a potent means of inducing auto-intoxication? In a patient with post-partum pyrexia noted by Fothergill, a temperature of 105° was promptly reduced by digitalis to 101°, yet the case steadily progressed to fatality, evidencing the fall was not due to any general improvement, but to the antithermic action of the drug *per se*. There was no increase of elimination, and no stimulation of the emunctories, and the morbid products remained unconsumed to poison the economy, and the ultimate result (which, unavoidable as it may have been, would have been ascribed to physical exhaustion) perhaps was accelerated, and doubtless due to resorption and general toxæmia.

Manifestly, then, digitalis is and must ever remain a misleading and dangerous remedy as regards pyrexias, especially those of septic character, if employed in a manner to secure its antithermic effects. During one year the writer witnessed the deaths of three patients suffering from simple remittent fever, all of which should, by every right, have recovered, and in each of whom the fatality was unmistakably referable to ignorant and injudicious use of digitalis as an antipyretic.

Another abuse of the drug is its general employment, *solus*, as a diuretic, as already referred to, without regard to the nature and character of the preparation. As before intimated, the glucosides of digitalis that alone are deemed to possess remedial virtues, are exceedingly unsafe to meddle with, more particularly owing to their precarious chemical composition. They are altogether too potent for careless or speculative use. The tincture alone is not even relatively diuretic except as it may act through a diseased heart and imperfect circulation, and the same is equally true of the fluid and solid extracts; and yet, paradoxical as it may seem,

the dry, powdered leaves are more apt to produce diuresis when given in conjunction (but not simultaneously) with alcoholic beverages, more especially when the latter are taken hot and greatly diluted. The true diuretic preparation, however, is the infusion, and here arises the very pertinent query as to how much this specific action is referable to the aqueous constituent; also whether the glucoside, digitonin, closely allied to scoparin, senegin, *et al.*, is not likewise a potent factor. Both undoubtedly should be considered, since the more active glucosides are little or not at all soluble in water; and the infusion is, moreover, in no sense antithermic, though it may sometimes relatively and reflexively induce some degree of antipyrexia; and it does not tend to increase general blood-pressure, while it does promote excretion and elimination and by the skin as well as through the kidneys.

But to be truly and effectively diuretic, digitalis infusion must be given in large doses, or its action reinforced by some other agent, the most effective for this purpose being cantharides, though broom, squill, or juniper usually receive preference; the ingestion of considerable quantities of fluid, also, is always desirable. Digitalis alone, in infusion, holds its own as a diuretic in Great Britain and in Europe, because it is seldom employed in the half-hearted, trembling way that generally obtains in the United States. Abroad it is customary to fairly drench the patient with a "tea" made with two handfuls of leaves and drank *ad libitum* until ultimate narcosis, vomiting, and purging supervene: "Somerseti Angliæ rustica turba hujus decocto febriciantibus purgationes et interdum super purgationes et vomitiones humidiboribus alvo molitur" wrote Ray in 1686, and this is true even yet in many parts of England, Scotland, Ireland; and in the latter country many practitioners find an ounce of fresh digitalis-leaves, infused in a gill of water, and repeated as required, a most effective remedy for epilepsy.

One word more: it may not be generally known that when there is great tension of the parietes of a cavity containing serous fluid,—abdominal, pleural, or pericardial, for instance, owing to extreme accumulation,—that neither digitalis nor any other diuretic will be effective. Here it is necessary the tension be first relieved, either by the aid of hydragogue cathartics or by paracentesis, when the diuretic drug will act most favorably and tend to prevent further accumulation.

G. Archie Stockwell.

Cyclopædia of Current Literature.

ACUTE OTITIS.

Etiology.—A young woman suffered congestion and sometimes inflammation of the middle ear that was intimately associated with the menstrual periods; with approach of each she would experience intense pain and throbbing in ears, especially at night. Once the attack was so severe that it was necessary to puncture the drum, which gave escape to purulent secretion. F. P. Hoover (Med. Record, Feb. 26, '98).

ADENOIDS, POST-NASAL.

Diagnosis.—The facial expression, to which little attention has been given apparently, is quite characteristic. The jaw usually becomes heavy in appearance; the cheek-bones lose their prominence; the bridge of the nose is broader and flatter; and there is a vacant idiotic stare. Also the eyebrows are arched; the forehead corrugated; the naso-labial groove obliterated.

Treatment. — Nothing short of removal should be for a moment considered. Eliot (Virginia Medical Semi-Monthly, Jan. 28, '98).

ANGINA PECTORIS.

Diagnosis.—In angina pectoris there is a special variety of musical heart-murmur. A man, aged 30 years, suffered from anginal attacks, and on auscultation a double aortic murmur could be heard, the diastolic part being musical, like the chirping of chickens. The apex-beat was in the fifth space and outside the nipple-line. No history of rheumatism, but he had been exposed to wet and cold; contracted syphilis at 21. Died in one of the attacks of angina.

Pathology. — Examination post-mortem discovered the mitral valves to be normal; the aortic valves thickened and stenosed, two cusps being adherent, and the third perforated near the aortic parietes, but not adherent. The aorta was atheromatous. Angina pectoris is probably a neuralgia of the cardiac plexus. Tecce (Brit. Med. Jour., vol. ii, '97; Indian Med. Record, Dec. 1, '97).

ANTITOXIN POISONING.

Five cubic centimetres (500 units) were given as a prophylactic to a patient. Five days later urticaria, accompanied by malaise and chilliness, was observed. The eruption soon extended all over the body. There were prostration, vomiting, and œdema of uvula and pharynx. After thirty-six hours the symptoms moderated, but by that time general glandular enlargement had developed which persisted for ten days. The same patient developed a transient urticaria two years previously after an injection of 7 cubic centimetres of serum. Morse (Boston Med. and Surg. Jour., Feb. 17; Philadelphia Med. Jour., Feb. 26, '98).

ARTERIOSCLEROSIS AND EPILEPSY.

In the first case reported the diagnosis seemed doubtful, as there was neither loss of consciousness nor convulsion. Another case presented only attacks like *petit mal*, while there were marked spasms in the two remaining. The patients were all above 70 years of age. None had any previous epileptic history, but all had arteriosclerosis, to which the attacks were attributed, senile epilepsy being regarded as closely related or identical with Stokes-Adams's disease, which is an affection of old per-

sons attended with coma, convulsions, and slow pulse. Allen (Medical News, March 5, '98).

CARCINOMA OF LIP.

Operation.—No operation can be considered complete until all dangerous foci are extirpated. Consequently the submaxillary and sublingual spaces should be thoroughly explored and all involved or suspicious lymphatic glands removed. J. C. Warren (Boston Med. and Surg. Jour., Feb. 24, '98).

CARDIAC SARCOMA (PRIMARY).

Post-mortem.—Case of extensive sarcomatous infiltration of heart originating in the pericardium. Ten years previously the victim thereof had several ribs fractured in the vicinity of the pericardial region. The original diagnosis was mediastinal tumor, owing to huskiness of voice, slow pulse, dyspnœa (not dependent on hydrothorax), and peculiar cyanosis limited to areas drained by the superior vena cava and the azygos. At autopsy the pericardial sac was found tense and distended with blood-stained fluid; there were recent fibrinous deposits, and the whole internal surface of the sac covered with white nodules lying beneath the endothelial coat; aorta and vena cava much compressed. A like growth involved almost the entire wall of the left venticle and extended to the border of the aortic valves. Both pneumogastrics were pressed upon by the pericardial nodules. The only other seat of malignant growth was the head of the pancreas, where a round nodule four centimetres in diameter existed. Under the microscope it was found that all the growths were small, round-celled sarcomata. Lambert (N. Y. Med. Jour., Feb. 12, '98).

CHANCRE, EXTRAGENITAL.

Etiology. — Though the eyelids are seldom the seat of primary syphilitic infection, the inner canthus, in the case of a child 15 months old, was the seat of a lesion transmitted from mucous patches on the tongue of the male parent. The excessive induration that generally complicates cases of this character was not observed. Gagzow (Deut. med. Woch., Feb. 10, '98).

A rare form of infection occurred in an adult male under treatment for nasal polypus, to which was applied a solid pencil of silver nitrate (lunar caustic). Soon after the cauterization a specific ulcer made its appearance that destroyed the tip, ala, and septum of nose and a portion of the upper lip. The diagnosis was based on the clinical picture, including, also, the rapidity with which resolution took place after specific treatment was begun. Burwinkel (Deutsche med. Woch., Feb. 10, '98).

CHOREA.

Etiology.—From statistics it would appear that the disease occurs in those of neurotic heredity, who have recently suffered from infection of some kind. This infection is, in the majority of cases, rheumatism, but there are many instances of chorea arising from other conditions, more particularly various specific diseases, such as measles (with or without broncho-pneumonia), scarlet fever, typhoid, influenza, bronchitis, tuberculosis, and varicella. Even boils with marked glandular enlargement, impetiginous eruptions on the head, and suppurative otitis seem to be capable of producing chorea. Legay (Thèse de Paris, '97).

CONVULSIONS, INFANTILE.

Etiology.—Convulsions are most fre-

quent under 2 years. There are two periods of frequency: under 1 month and between 6 months and 2 years.

The nature of the nerve-reaction resulting in a convulsion is not understood, but it is probable that instability of nervous tissues at this period of life favors this reaction.

Convulsions are frequently observed in adult life, and result from auto-intoxications and other causes.

Convulsant substances may be introduced from without or generated within the economy. (*a*) Substances useful to the economy, if they accumulate, become harmful—for instance, water, carbonic acid, mineral substances, the salts of biliary acids, soluble ferments, toxins not ferments in saliva, alkaloids of secretion in urine; (*b*) infectious agents may elaborate toxins; (*c*) organisms constantly present in the economy under certain circumstances may become infectious agents.

The instability of all the organs and tissues of the infant economy makes auto-intoxication common.

Convulsions occurring in rachitis and diseases associated with great nutritional disorders, all forms of gastro-intestinal disorders, and the acute infectious fevers are most readily explained on the ground of auto-intoxication.

Convulsions resulting from marked disturbances in the respiratory and circulatory systems—as, for instance, asphyxia and hæmorrhage—are, in all probability, toxic.

The reflex origin of convulsions is probably not common. It should, however, be noted that when the so-called convulsive habit is established reflex disturbance may bring on a spasm. Sanger (Med. Standard, Jan., '98).

DILATATION OF STOMACH.

Diagnosis.—Referring to the extreme grades of dilatation in which a large part of the abdomen is filled, these dimensions are attained in the presence of pyloric obstruction, rarely carcinomatous. Obstruction due to carcinoma usually leads to death before extreme dilatation occurs. A lady of 35, not robust, but in good health, took some ice on an empty stomach at 5 P.M. on a hot afternoon, when fatigued. The evening of the following day she was seized with violent pain in the epigastrum and with tetany, involving mainly the hands; after taking brandy she vomited and became unconscious. After five days, during which milk was the sole diet, a little chicken was given, but tetany again occurred, which was relieved after vomiting provoked by hot water. In this case there was acute paralytic dilatation of the stomach.

Another case of apparent dilatation was a man of 50 in whom faintness and vomiting occurred near the end of a journey and after a heavy meal.

A symptom of dilatation little recognized and less spoken of is anginoid pain; this, when of gastric origin, is always due to dilatation or distension, and seems to be caused by pressure upon the heart; sometimes it is so severe as to be indistinguishable from true angina pectoris. The fact that the early attacks occur without the stimulus of exercise or excitement leads to recognition of the cause. Vertigo is a symptom of some importance; but there is not the sudden onset and apparent translation, horizontal or vertical, of external objects that is met with in auditory vertigo, and falling is rare; but the patient may be compelled to take hold of objects to avoid falling. Eructation usually relieves

this symptom. In diagnosis dependence is to be placed mainly upon percussion and auscultation and upon palpable and audible splashing of the gastric contents. Auscultatory percussion may be of assistance; but inconsistencies frequently appear in the physical examination, probably due to expulsion of portions of gas or shifting of the contents of the stomach, or the like. W. H. Broadbent (Practitioner, Jan., '98).

DYSTOCIA (UNUSUAL).

A woman, 26 years of age, was confined with her first child in 1896. After an unusually difficult version, the body was delivered, but not the head, which required the use of forceps. Subsequent examination showed that there was no contraction of pelvic diameters. At her second confinement the head did not engage and the pains were inefficient. Examination with the whole hand showed that the head was not impacted in the superior strait, and also that there was no disproportion between the fœtus and pelvis. After the woman had been in the second stage for six hours, an attempt was made to deliver with forceps, but the head could not be brought further than the superior strait. It was then found that the neck of the child was so tightly grasped by an hour-glass contraction that version could not be performed until the head had been pushed up through the ring above. The child was delivered in a moribund condition, and weighed 8 1/4 pounds. McLean (Phila. Med. Jour., Mar. 12, '98).

ECHINOCOCCUS OF BOTH LUNGS.

Girl had signs of liver and pulmonary disease. The heart was much displaced to the right, and, when the mouth was opened, a buzzing noise was heard synchronous with the cardiac sounds. On puncture of the left side of the thorax posteriorly, fluid containing hooklets was withdrawn. The seventh and eight left ribs were resected behind, the costal and pulmonary layers of the pleura united by a circle of sutures, and the lung laid open within the circle. An hydatid as big as a normal human bladder was removed, lung immediately filling its place. At once the buzzing noise, caused by pressure of the cyst on the pericardium, disappeared. Six weeks later there was pricking pain and dullness at the right base. On puncture, hydatid fluid escaped; dyspnœa followed till the patient coughed up much hydatid fluid. Later on chronic broncho-pneumonia developed. On recovery it appeared that the echinococcus had atrophied and come away. The patient is now well. The right thorax, which had been treated by nothing more radical than puncture, was somewhat diminished in capacity, while the left, where resection and removal of the hydatid had been so successfully undertaken, remained of normal capacity. Steiner (Centralb. f. Chir., No. 1, '98).

ECLAMPSIA.

Pathology.—A study of 500 cases shows that hæmorrhage is the distinguishing feature of the changes found in the various organs, and that among the complications broncho-pneumonia and cerebral hæmorrhage are the principal causes of death. Bacteriological investigation results negatively except in mixed infection. Chemical investigation of the blood and of the toxicity of the urine and serum is still in the preliminary stages, and the present knowledge of eclampsia does not justify sweeping conclusions in regard to its

etiology. In 368 cases only 7 had sound kidneys; there was nephritis in 46 per cent.; chronic inflammatory processes in 11.6 per cent. Changes in the liver, mostly hæmorrhagic, were noted in 213 cases. Hæmorrhage into the brain was noted in 28.4 per cent.; intracranial hæmorrhage in 35.3 per cent. The stomach, intestines, spleen, pancreas, suprarenals, and genitalia are also frequently found to have been the seat of hæmorrhage, and even the skin, mucous membrane, muscles, serous surfaces, and thyroid gland. Prutz (Deutsche med. Woch., Dec., '97).

EMBALMING CRUSHED MEMBERS.

A woman, eight and a half months pregnant, had her hand crushed in machinery. For several days the hand was plunged for hours at a time in phenicated and disinfected hot water. Then a few whiffs of chloroform were given and the toilet of the hand accomplished with quantities of very hot water and solutions of sublimate and potassium permanganate, removing the loose projecting fragments of bone. Small squares of soft gauze impregnated with a polyantiseptic salve were carefully fitted into every crevice, covering the hand entirely, and the dressing completed with a thick layer of cotton and a tight, compressing bandage outside of all to secure anastomosis of the vessels. She then left for a maternity, where she underwent a normal confinement. The embalming dressings were not touched for three weeks, and, when removed, under a thick layer of a fœtid, chocolate-colored fluid, the wounded surface was found covered with healthy granulations, with the necrosed parts entirely eliminated. An autoplastic operation was performed a week later, which healed rapidly. (Jour. des Scien. Méd. de Lille, Dec. 25, '97).

EMPYEMA OF FRONTAL SINUS.

Treatment.—This seems to be an occasional sequel to attacks of influenza. Several incisions have been proposed for the purpose of emptying the cavity: one along the lower border of the supra-orbital ridge, after pulling the integument forcibly upon the forehead, or this incision may be joined by one perpendicular to it along the base of the nose; or an incision may be made in the median line, $1\,^1/_2$ inches from the base of the nose. The skin and the periosteum are then elevated; the sinus opened with a trephine, drill, or chisel; polypoid or necrotic tissue removed and the cavity thoroughly cleansed; the fronto-nasal duct may be enlarged by passing a trocar from the sinus into the nose, and a self-retaining drainage-tube inserted. The cavity is then kept free from secretions by irrigation with a mild, antiseptic solution. Bryan (Jour. Amer. Med. Assoc., Feb. 26, '98).

EPILEPSY.

Pathology.—Recent experimental observations prove that the fits in cases of idiopathic epilepsy are preceded and accompanied by greatly increased toxicity of the blood, urine, and gastric juice. Therapeutic measures—such as the free use of purgatives, diuretics, and intestinal antiseptics, washing out of the stomach, etc.—have been advocated with a view to the prevention of the formation or accumulation of toxins in the body in such cases. The sweat of epileptics increases in toxicity about the time of the fits. Sweat for experiments was obtained by placing patients in a hot-air bath, and the results sug-

gested the use of the baths as a therapeutic agent, with a view to elimination of the toxins by way of the skin.

Treatment.—The baths were given an extensive trial, and the results evidenced that they afford an excellent means of preventing and interrupting epileptic attacks. They should be employed whenever the prodromal symptoms manifest themselves. The beneficial effects are not merely transitory; and the baths exert upon other organs, in addition to the cutaneous glands, an influence which causes them to eliminate the poison more rapidly. Cabitto (Rev. Speri. Freniat. e di Med., Dec., '97).

A boy, 10 years old, suffered severely with epilepsy for two years: had from fifteen to twenty seizures each day; mind enfeebled; muscular paralysis. He was given from 5 to 7 tablespoonfuls daily of a mixture containing 60 grains of potassium bromide and 6 grains of codeine in 45 drachms of infusion of false hellebore (adonis vernalis); in a few weeks the amount of adonis taken was doubled. The attacks diminished in number and severity, and finally ceased altogether. His mental and bodily condition became normal again. Tekoutief (Jour. de Méd. de Paris, Feb. 6, '98).

FAT-NECROSIS.

Etiology.—A case was suspected during life as being one of fat-necrosis because of the presence of meteorism and pain on pressure over the abdomen, and the absence of vomiting, hiccough, and fever. After death the pancreas was found necrotic and hæmorrhagic. The pancreatic changes were primary, and not the results of peripancreatic fat-necrosis. In a case of gunshot injury of the abdomen cœliotomy was performed to control hæmorrhage and the peritoneum was found to be normal. Death occurred thirty-six hours later, and extensive fat-necrosis was found to exist throughout the peritoneal cavity. The bullet had pierced the pancreas and had caused extensive destruction of its tissue. A variety of bacteria were found upon the peritoneal surface, but the autopsy was performed some time after death. The parenchymatous changes in other organs pointed to an infectious process. Simmonds (Munch. med. Woch., Feb. 8, '98).

FRACTURE OF TRACHEA.

A man, aged 46, received a slight blow on front of throat. Felt some pain, but took no further notice of it, though the following day there was some swelling. Ten days later he had a shivering and increased pain. Twelve days after the accident he was lying on his back, breathing rapidly, and somewhat cyanotic; had a handkerchief tied around his head, and when asked to raise himself up took the handkerchief in one hand and raised his head, while he raised his body with the other. He had great difficulty in swallowing. The whole of the front of the neck was swollen from the clavicles to the angles of the jaws; skin was bright red over the neck and upper part of the chest.

There was a rounded swelling, about two inches in diameter, just below the level of the thyroid cartilage, which evidently contained air. Fluctuation could be detected below the angle of the jaw on the right side, and on the left side in front of the sterno-mastoid, about the level of the thyroid cartilage.

An incision was made into the swelling, in front of the trachea, and air and very fœtid pus escaped; then a drainage-

tube inserted in the subcutaneous tissue up to the angle of the jaw, when another large quantity of pus escaped. On the third day after operation large sloughs of subcutaneous tissue came away, and the temperature fell to normal. Healing was now rapid.

The interesting point is the slight degree of violence which caused the fracture, which, perhaps, may be accounted for by calcification of the rings having occurred. It was only after careful inquiry that any history of a blow was obtained. Park (Austral. Med. Gaz., Oct. 20, '97).

GANGLION.

Treatment. — Unsatisfactory results often follow attempts at treatment of this simple, but troublesome, affection of the wrist; but the following is usually attended with excellent results: The affected part is first thoroughly cleansed, then 4 drops of undiluted tincture of iodine injected into the cyst by means of an hypodermic syringe; next, a pad of wool is placed over the swelling, and pressure exercised upon it by means of a roller bandage. The dressing is taken off at the end of four days, and the operation repeated if necessary. The cyst nearly always disappears after the second injection, but if it does not the ganglion should be excised. The injection of iodine cures without leaving any scar, without causing any deformity, without material pain, and without suppuration. Lacourt (Thèse de Paris, Feb., '97).

GASTRIC ULCER.

Treatment.—Rest in bed; Carlsbad water; poultices very hot and changed every ten minutes. After five days substitute Priessnitz bandages for poultices. Strict regulation of diet.

Surgical treatment should be resorted to: When there are repeated hæmorrhages that make the patient anæmic; when long-continued medical treatment has proved ineffective; when there is perigastritis caused by adhesion of stomach to other organs, especially when a subphrenic abscess has formed; when there is perforation and an opening into the abdominal cavity. Von Leube (Med. Rec., Jan. 15, '98).

HÆMORRHOIDS.

Operative Treatment.—The objections to the clamp-and-cautery method are: danger of hæmorrhage; delayed recovery, the healing of ulcers caused by the cautery requiring a longer time than when the ligature is used; tendency to prolapse; danger of producing more or less permanent stricture. The Whitehead operation cannot be approved.

The Allingham operation is always preferable, and, if the anal sphincter is thoroughly dilated during the procedure (and it should be, so as to paralyze it for about a week), the last objection to this method disappears. Another important point is to thoroughly cut through the mucous membrane at the base of each hæmorrhoidal tumor before tying it off. The Allingham operation is simple in every way to perform; there is never any serious hæmorrhage; little, if any, pain; finally, the results obtained are fully as good as those from clamp and cautery, if not better. Alexander (N. Y. Med. Jour., Feb. 12, '98).

HAIR, FUNCTIONS OF.

Study of the descent of man and of embryology shows that our ancestors were entirely covered with hair, as are the anthropoid apes. According to Darwin, the gradual disappearance is due to repulsion felt by women toward hairy men; that is, to sexual selection.

The hairs are modified sense-organs that have lost all connections with the nerves. It is probable that in primitive man the distribution upon the body was irregular, and that the length, color, structure, and thickness varied with functions. That left upon the body in the process of evolution has a definite purpose. Certain hairs serve as organs of touch, notably the eyelashes, the bulbs of which are surrounded by a network of nerve-fibres, and in a less degree the hairs of the eyebrows; both serve to protect the eyes, for, being sensitive, they give warning of danger, so that reflex closure of the lids is produced; the eyebrows also prevent drops of sweat from running into the eyes, while the eyelashes keep out the dust. The down which covers the body is also endowed with tactile sense, the hair in the region of the genitals and anus being the least sensitive. A thick growth of hair is also found in those parts of the body where friction must take place between contiguous cutaneous surfaces, as in the axillæ, groin, and perineo-scrotal and perineo-vulvar regions. A hairy covering markedly diminishes the friction of cutaneous surfaces.

In animals the hair serves to maintain and regulate the heat of the body, but in man that of the scalp alone serves this purpose. Hair is itself a poor conductor of heat, and retains air—also a poor conductor—in its interstices. Exner (Wien. klin. Woch.; Canada Lancet, Mar., '98).

HYPNOTICS.

Comparisons. — Chloral is the most popular hypnotic and the one which most frequently gives rise to habit. A safe derivative of this drug is chloralamid, inasmuch as the amide radical neutralizes, to a considerable extent, the depressing action on the heart; and, as it is slowly soluble, its action is more prolonged. If chloralamid habit is formed, it is comparatively easily cured.

The most potent hypnotic is, perhaps, paraldehyde. Chloralamid ranks second, pellotin third, and trional last. Sleep follows most quickly after pellotin, next after paraldehyde, then after chloralamid, and lastly after trional. With moderate doses the longest sleep is obtained from trional; next comes paraldehyde, then pellotin, and, lastly, chloralamid. The danger of a habit from pellotin is extremely slight; it is a little greater from chloralamid; there is very great danger from paraldehyde. Chloralamid is the safest of all, next comes pellotin; then paraldehyde; the most dangerous for continuous administration is trional. Wilcox (Post-Grad., Nov., '97).

INFLUENZA.

Treatment. — Calomel is an exceedingly useful drug in the early stages of an attack of influenza, if given in doses of 2 grains twice daily to adults or 1 grain three or four times a day. In infants smaller doses should be given according to age. The effects of this method are remarkable. In a few hours are obtained a great fall of temperature, disappearance of the neuralgic pains, and increase of appetite. The advantage of this treatment is that it is inoffensive and admits of general employment. A cure can usually be produced by the third day. Frudenthal (Therapeutische Monatshefte, Oct., '97).

KIDNEY RESECTION.

Resection of kidney should always be as conservative an operation as it can

possibly be made, and partial excision should always be preferred to total unless the latter is absolutely imperative. The operation has been performed but comparatively a few times, and is dreaded by surgeons because of the dangers of hæmorrhage from the wound, and of formation of ureteric fistulæ.

A boy, 13 years of age, entered the Royal Frederick Hospital, complaining of pain near the curvature of the lower ribs on right side. Some months previous he had suffered an attack of hæmaturia, which, however, disappeared the following day, only to reappear after a time whenever he indulged in overexertion. For three months previous to his entering the hospital there had been only brief intervals when he was free from pain and hæmaturia.

No distinct tumor could be found, but the real trouble was suspected because of the firm resistance found in the right lumbar region. His urine was sanguinolent and contained both red and white blood-corpuscles, and once hyaline casts were observed. No fever. No trace of stone could be found either by palpation or needle exploration. An operation for removal was finally decided upon. All that portion of the kidneys lying below the hilus was swollen, and consequently extirpated; all the lower two-thirds of the organ was removed by the usual common incision along the convex border, then a transverse one, the latter involving healthy tissue; sutures of the renal substance and of the capsule were made separately. Six weeks after operation the wound closed, urine was normal, and patient feeling well. Nine months after operation he appeared in perfect health. The tumor was an adenosarcoma. Bloch (Hospitalstidende, No. 797).

LARYNGEAL OCCLUSION (SPASMODIC).

Etiology.—Spasmodic closure of the larynx in the adult is usually a reflex symptom of some remote nerve-lesion that induces paralysis of the abductor muscles. The attacks are sudden and transient, nearly always preceded by discharge of frothy mucus, and are not followed by pain or other unpleasant sensation. The victim is seized with sudden violent coughing that almost amounts to strangling, grasps some convenient object, falls, and loses consciousness for a few seconds; the loss of consciousness appears to closely resemble that which accrues to the inhalation of nitrous oxide. About thirty cases of this kind are reported in medical literature, and in one seen by the writer the seizure appeared to be of the nature of *petit mal.* Stillson (Jour. Amer. Med. Assoc., Feb. 26, '98).

MÉNIÈRE'S DISEASE.

Etiology.—Ménière's disease is supposed to arise from lesions restricted to the semicircular canals. Cases are reported, however, in which the canals were absent, and Ménière's malady occurred, and, again, where the canals were filled with blood without any evidences of faintness, vertigo, or deafness. Also chronic catarrhal conditions of the middle ear, lesions of the brain and its membranes, organic changes in the perceptive mechanism, circulatory disturbances, certain diatheses, etc., have been thought to be the cause of the symptoms.

Treatment.—Rest in bed, restricted diet, attention to the excretory functions, and the administration of bromides usually prove effectual. In gouty or rheumatic cases the salicylates, or salts of lithium, with potassium and

colchicum are to be recommended. Bleeding may be called for in cases of apoplectiform character, with a full, tense pulse. Probably the disease is more frequent that is generally believed, and many of the milder forms are ascribed to cerebral troubles or to gastric or visceral disturbances. Brown and Daland (Jour. Amer. Med. Assoc., Feb. 26, '98).

NASAL FRACTURES.

Fractures involving the inferior turbinate are rare. In two children—aged, respectively, 10 and 4 years—the nasal process of the superior maxilla was the point injured and presumably fractured. In the elder patient sequestration occurred, and two weeks later the greater part of the inferior turbinate also came away as a sequestrum. In the second case there was considerable swelling, but fracture of the nasal process was not actually made out; the injury was followed by purulent rhinitis, and not until two years had passed was the cause of this condition found to depend on the presence of a necrosed and sequestrated inferior turbinate. Garel (Ann. des Mal. de l'Oreille, Oct., '97).

OCCLUSION OF POSTERIOR NARES (COMPLETE).

But twenty-one cases have been reported in medical literature previous to the following: The patient presented the typical "adenoid face" and was much troubled with dryness of the mouth; the sense of smell was entirely absent and that of taste very much obtunded. At the operation the occluding walls were found to be composed of bone, varying in thickness from 2 to 9 millimetres; the occlusion was overcome by drilling through the bony wall with a trephine. While most of the symptoms due to nasal obstruction disappeared after the operation, the sense of smell was in nowise affected. Clark (Boston Med. and Surg. Jour., Feb. 24, '98).

OTOMYASTHENIA.

Diagnosis.—The debilitated condition of the muscles of the ear often prevents many persons from selecting and amplifying sounds correctly and naturally. When a subject is thus otomyasthenic, the diagnosis is readily made through the fact that he is able to hear distinctly one person when talking alone, but when a number are conversing the sounds are not differentiated; only a confused mumbling is recognized. Rumbold (Cincinnati Lancet-Clinic, Jan. 8, '98).

PICRIC-ACID POISONING.

Two children, one 11 years old, one 4, had burns dressed with compresses dipped in picric-acid solution. There was great pain for half an hour. Five days later, on second dressing, the local condition was good, but the pains recurred, and the solution was substituted by a 10-per-cent. ointment of picric-acid: an amount sufficient to contain 300 grains of acid was used on each child. There was severe smarting, and at the end of twenty-four hours vomiting set in and lasted an entire day, with colic, diarrhœa, an intense yellow coloration of the skin, somnolence, prostration, and scanty, dark-colored urine. A second application of the ointment was made, and the vomiting reappeared, to subside only on the removal of the dressing. Walther (Gaz. Hebdom. de Méd. et de Chir., Jan. 27, '98).

PLAGUE.

Characteristics.—During the stage of invasion there is often a semi-intoxicated

condition much like the language-clipping stage of alcoholism. There is nothing to suggest the term "black death," unless it is a tendency to ecchymoses and the black or "plague spots" that arise from the bites of insects. There are few cases in which there is not an initial bubo, and such are often termed pneumonic, though there may not be any important involvement of the lungs. Thick, grayish, tenacious pus is characteristic of the buboes.

Infection.—Local inoculation oftentimes, doubtless, accounts for the situation of suppurating glands (buboes), and the peculiar habit of putting all sorts of articles in the mouth probably explains the frequent involvement of cervical glands in children. Arnold (Phila. Polyclinic, Jan. 8, 15, '98).

PROSTATIC ENLARGEMENT.

Treatment.—A youth, aged 19 years, of neurotic temperament, complained of pains in the perineum. On examination the prostate was felt as large as a bantam's egg. He denied masturbation. After being treated for some time without benefit, he was given thyroid tablets thrice daily, with the result that the enlargement entirely subsided and his neurotic symptoms were considerably reduced. Stretton (Birmingham Med. Review, Mar., '98).

QUININE IN MALARIA.

Quinine is a specific against the protozoön of tertian or quartan malaria.

It inhibits, for a time, the development of the protozoön of pernicious malaria, but does not kill it; nor does it, even when constantly taken, prevent its development every time the patient catches cold or is exposed to a particularly severe contagion.

Quinine alone has no action on the toxin produced by grave malaria over which calomel has twice the potency (at least in full physiological doses).

Even as a prophylactic quinine cannot be indefinitely taken.

It has no effect whatsoever on malarial anæmia (really a chronic toxæmia).

As a preventive, quinine will not do for those who are compelled to live indefinitely in a severe malarial climate; in time it will act as a vasomotor poison.

It acts nearly as a specific in all malarial fevers characterized by intermissions or well marked remissions, but fails in the continued fevers, those with typhoid-like symptoms, those malarias without temperature, and the cachexias and anæmias due to malaria.

Thus quinine is a poison to the plasmodium itself, but useless against the toxin manufactured by it.

Warburg's tincture, in the last condition, has an action not yet understood on the toxin (or the eliminative system), by which the system is put in condition to benefit by quinine.

Quinine should never be used in hæmoglobinuria, or given subsequently to one who has suffered from it,—being liable to bring about a recurrence of the condition.

Only those living in regions of severe malarias can become competent to settle these questions *pro* or *con*. Van Marter (Va. Med. Semi-Mo., Feb. 1, '98).

SCROTAL PRURITUS.

Treatment.—Take twice daily a medium dose of quinine with sodium bicarbonate; also bathe the parts three or four times during the twenty-four hours with a lotion made by adding, to a glass of hot water, 1 to 4 tablespoonfuls of the following:—

℞ Carbolic acid, 5 drachms.
Glycerin, 28 drachms.
Alcohol (60°), 6 drachms.
Water, 10 ounces.

This will be found very effective. Brocq (Med. Press and Circular; Med. and Surg. Reporter, Mar. 12, '98).

SEWER-GAS AND BACILLI.

It has frequently been surmised that the inhalation of sewer-air determines the occurrence of diphtheria, although diphtheritic bacilli cannot be conveyed in this medium, since they are not disengaged by evaporation from the fluids in which they are grown. It is possible that a non-virulent diphtheria bacillus such as is present in the throats of many persons may, in consequence of the inhalation of sewer-air, become virulent and give rise to diphtheria in the throat. In order to determine this point non-virulent diphtheritic bacilli were grown in Duclaux flasks in broth, and over the surface of the medium sewer-air was continuously and slowly drawn by means of a water-pump. The only noticeable effect was a retardation of the growth of the bacilli. Their virulence was not increased, as was proven by subcutaneous injections in guinea-pigs. These results are interesting, although they do not exhaust the question. Shattock (Med. News, Jan. 22, '98).

SUPPURATIVE OTITIS.

Treatment.—A saturated solution of picric acid (1 to 87) affords most satisfactory results in the majority of forms of suppuration of the middle ear. Picric acid is not only a good antiseptic and mild analgesic, but it favors epidermization in a marked degree. A good formula is

℞ Picric acid, 3 grains.
Alcohol (90°), 45 minims.
Distilled water, 5 drachms.

Twenty minims may be instilled, warm, night and morning, and permitted to remain for five minutes. The mucosa is found to be covered with epidermic *débris* after use of the foregoing, and copious irrigation is necessary to cleanse the ear. The solution should be applied daily in order to prevent accumulations of coagulated albumin. Usually the application of the solution causes the discharge to cease in a few days, and perforations readily heal, but in chronic cases complicated with caries, though the results are good, the treatment requires to be prolonged. It is inadmissible where there is acute inflammation or an eczematous condition of the meatus, and also (owing to its tendency to promote desquamation and hardening of *débris*) where cholesteatoma is to be feared.

It is unfortunate that the acid stains the skin a bright yellow, but this stain is easily removed by a saturated solution of carbonate of lithia. Lacroix (Arch. Internat. de Laryng., de Rhinol., et d'Otol., '97).

ULCER OF THE STOMACH AND CLIMATE.

Ulcer of stomach is exceedingly rare in either males or females in India. Although anæmia and disorders of digestion are very common among native females throughout the Hindoostani Peninsula, the rarity of stomach ulcer, as compared with its frequency in England, is both surprising and interesting. Hatch (Indian Med. Record, Dec. 1, '97).

New Books Received.

The editor acknowledges, with thanks, the receipt of the following books:—

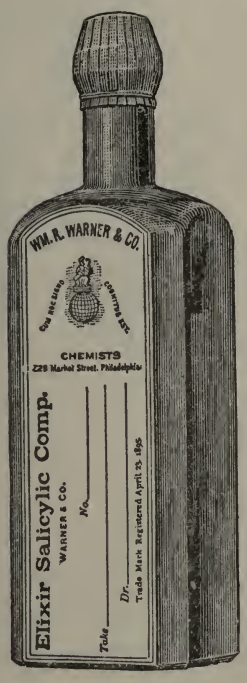
Transactions of the Nineteenth Annual Meeting of the American Laryngological Association. D. Appleton & Co., 1898.——About Children: Six Lectures Given to the Nurses in the Training-school of the Cleveland General Hospital in February, 1896. By Samuel W. Kelley, M.D. Cleveland: Medical Gazette Publishing Co., 1897.——Health of Body and Mind: Some Practical Suggestions of How to Improve Both by Physical and Mental Culture. By T. W. Topham, M.D. Brooklyn-New York: Eagle Press, Publishers, 1897.——Principles of Medicine: Designed for Use as a Text-book in Medical Colleges and for Consideration by Practitioners Generally. By Charles S. Mack, M.D. Chicago: W. T. Keener Co., Publishers, 1897.

Monographs Received.

The editor acknowledges, with thanks, the receipt of the following monographs:—

The Treatment of Malaria. By Judson Daland, M.D., Philadelphia.——The Nature of the Leucocytosis Produced by Nucleinic Acid: A Preliminary Experimental Study. By Delano Ames, A.B., M.D., and A. A. Huntley, M.D., Baltimore, 1897.——Appendicitis. By William B. Van Lennep, A.M., M.D., Philadelphia, 1897.——The Co-existence of Typhoid and Malarial Infection. By J. M. Da Costa, M.D., LL.D., Philadelphia.——Appendicitis—Report of Four Cases. By Merrill Ricketts, Ph.B., M.D., Cincinnati, 1897.——The Origin of Corpora Amylacea in the Prostate Gland. By J. R. Eastman, B.Sc., M.D., Indianapolis, 1896.——Diagnosis by Inspection in the Urinary Tract. By J. R. Eastman, B.Sc., M.D., Indianapolis, 1897.——Primary Sarcoma of the Iris. A Statistical Study, with the Report of an Additional Case, in which the Growth was Successfully Removed by Iridectomy. By C. A. Veasey, A.M., M.D., Philadelphia, 1897.——Deficient Excretion from Kidneys not Organically Diseased and Some of the Diseases Peculiar to Women, and Diseases of the Skin. By L. D. Bulkley, A.M., M.D., New York, 1898.——The Action of the Nervous System over the Nutritive Processes, in Health and Disease. By B. O. Kinnear, M.D., New York, 1897.——Neurasthenia or Neuro-sthenia: Which? And an Efficient Treatment. By B. O. Kinnear, M.D., New York, 1897.——The Feasibility of Controlling Pernicious Vomiting by Means of Intubation of the Larynx with a Specially Adapted Tube. Charles Lyman Greene, M.D., St. Paul, 1897.——A Note on the Use of de Zeng's Refractometer. By S. L. Ziegler, M.D., Philadelphia, 1897.——On the Use of Stethoscopic Pressure in Physical Examination of the Heart. By H. Sewall, Ph.D., M.D., Denver, 1897.——Guaiacol as a Local Anæsthetic in Minor Operations on the Nose and Throat. By J. E. Newcomb, M.D., New York, 1897.——Some Cases of Feigned Eruptions. By F. J. Shepherd, M.D., C.M., 1897.——A Distinguished Physician-Pharmacist—His Great Discovery, Ether-Anæsthesia. By Joseph Jacobs, Atlanta, 1897.——Regulations Concerning Cattle Transportation. U. S. Department of Agriculture, Washington, D. C., 1898.——Meadows and Pastures. U. S. Department of Agriculture, Washington, D. C., 1897.——Proceedings and Addresses at a Sanitary Convention held at Hanover, Mich., June 3 and 4, 1897.——The Etiology and Pathology of Typhoid Fever. By H. B. Baker, Lansing, Mich., 1896.——Proceedings and Addresses of the Annual Conference of the Health Officers in Michigan. Ann Arbor, July 16 and 17, 1896.——Urate Disease. T. D. Myers, M.D., Philadelphia, 1897.——Ein Fall von Adeno-Carcinoma der Nase. Von F. E. Hopkins, M.D., 1897.

[End of the Editorial Department of the Monthly Cyclopædia for March, 1898.]



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	Cases.	Deaths
Ordinary Diphtheria	115	1
Laryngeal Diphtheria	26	6
	141	7
Excluding two cases Moribund on Admission	2	2
	139	5
Mortality under Antitoxin Treatment		3.6 per ct.

The antitoxin employed exclusively in Harper Hospital during 1897 was the Antidiphtheritic Serum of Parke, Davis & Co.'s Biological Department, and the remarkable reduction displayed in the death-rate reflects the highest credit on the efficacy of this matchless product.

Notes and Comments (continued).

Reduced Freight Rates for Settlers.—In order to encourage the movement of settlers and land-buyers from Illinois, Wisconsin, Iowa, and the eastern states to western Minnesota, South Dakota and North Dakota, the Chicago, Milwaukee & St. Paul Ry. Co. has very materially reduced its carload rates for emigrant movables, so that farmers who have purchased lands in western Minnesota, South Dakota, and North Dakota can take all of their belongings with them to their new homes at small expense, which inducement upon the part of the Chicago, Malwaukee & St. Paul Ry. will, no doubt, be greatly appreciated by those who are thus benefited.

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The Cure of Stammering.—Stammering is such a troublesome affliction that it will interest many to know that Mr. Edwin S. Johnston, of 1033 Spring Garden St., Philadelphia, has devised a method by which, for many years, very satisfactory results have been obtained. A great number of pupils have been successfully treated in the institution founded by Mr. Johnston, whose work is well known in this community.

Antikamnia in Tic Douloureux.—Dr. Bernays, of St. Louis, describes a severe case in which neurectomy was finally necessary. He states that the patient had "strenuously avoided the use of narcotics, but, during the more active periods of pain, antikamnia in 10-grain doses was found to be an efficacious obtunder."

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Kryofine in Influenza.—Bresler, of Freiburg, reports sixteen cases treated very successfully with kryofine. The drug seems to meet most of the indications in this affection and to have a very beneficial effect on the course of the disease.

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In a recent contribution to the *Medical News*, November 27, 1897, by Prof. R. W. WILCOX: **"A Phase of the Treatment of Goutiness,"** the author arrives at the following conclusions:

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neuralgias, is very prompt, powerful and prolonged. In acute gastritis it has given very good results in relieving pain, vomiting, and temperature.

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Fairchild's Essence of Pepsine.—This excellent preparation is of use in gastric dyspepsia, allays nausea and vomiting and assists the stomach in tolerating the continued use of irritating drugs. It is of pure quality and has long been recognized as a reliable remedy.

Henry's Three Chlorides in Syphilis.—If we consider that next to mercury tonics of iron and arsenic are the most important drugs to be given, Henry's Three Chlorides which contain all three ingredients and never cause disagreeable symptoms is the *desideratum* in the treatment of syphilis.

The New York Board of Health as Manufacturers.—There is no more legitimate reason why the Board of Health of New York should engage in the manufacture of diphtheria antitoxin than that it should undertake to produce quinine, morphine, ether, chloroform, or any other powerful preparation used in the practice of medicine. This entrance upon commercial pursuits is altogether unnecessary, it is an invasion of the rights of persons who have invested capital in this line of enterprise. The city has no right to interfere with the conduct of private business. The project of the Board of Health is uncalled for and indefensible. Their action is all the more reprehensible when we read that it costs the City of New York $60,000 to produce $10,000 worth of antitoxin.

Benzolyptus in Catarrhal Affections is especially indicated. Experience has shown that an alkaline fluid is not only the best solvent for mucus, but also exerts a soothing effect upon the inflamed mucous membranes. In benzolyptus (Schieffelin), these beneficial effects of the alkaline ingredients are supplemented by its antiseptic and anti-catarrhal properties, in consequence of which it arrests all growth of microbes and facilitates the process of healing. In the various forms of rhinitis, pharyngitis, and tonsillitis, benzolyptus has proved an important auxiliary in the treatment.

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ceived 9290 manuscripts and less than one per cent. were accepted. The magazine employs 22 staff-editors; 24,648 letters have been received and answered in the year by the editors of the correspondence columns. The Journal has over 15,000 active working agents on the road getting subscriptions. It has educated 442 girls free of charge under its free educational plan. In a single day it has received as high as 18,000 subscriptions; 300,000 copies of the Journal are sold each month on the newsstands alone; 425,000 people subscribe for it by the year.

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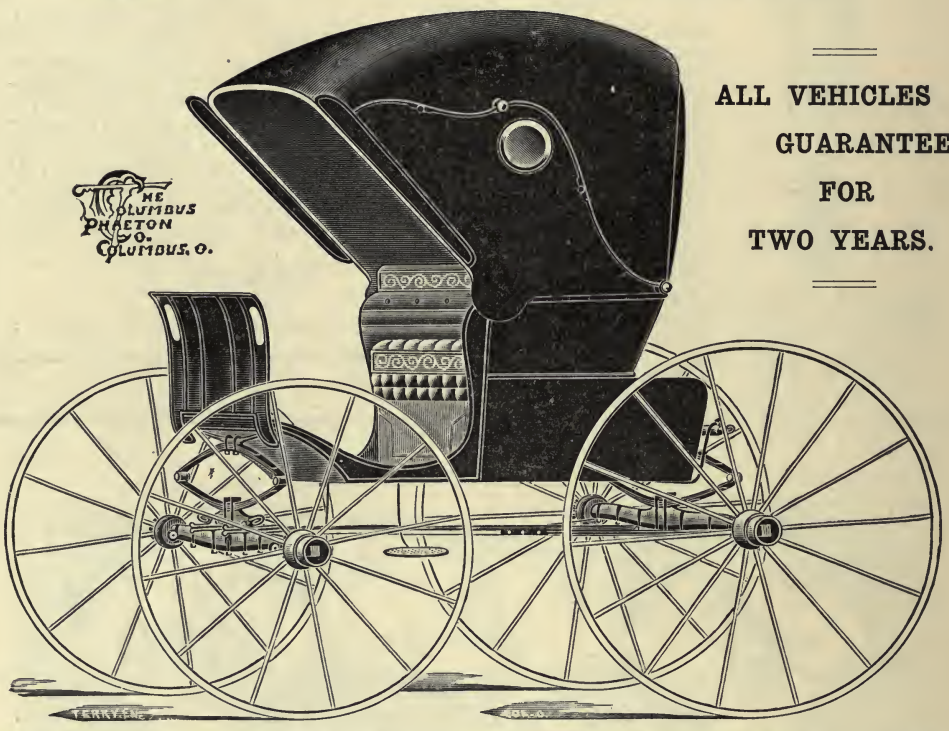

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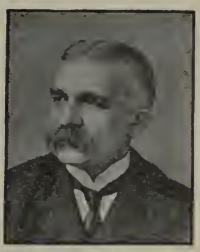

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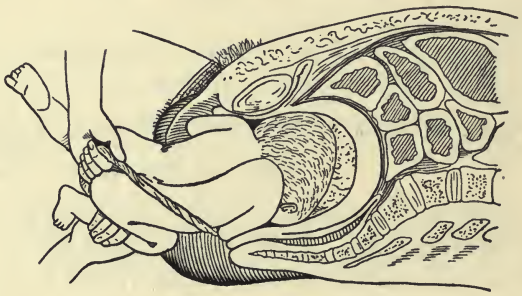

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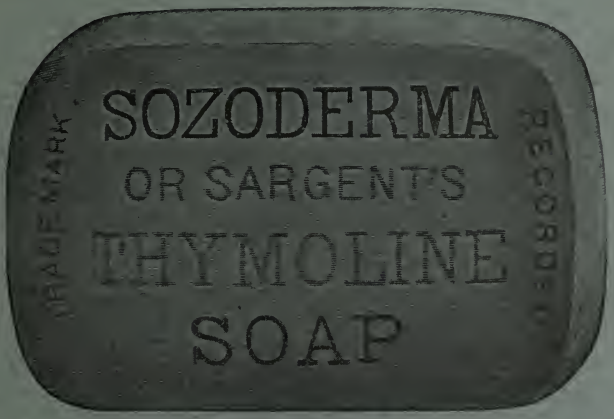

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